

# PVM-2130QM

## RM-668

## SERVICE MANUAL



*AEP Model*

Chassis No. SCC-A99A-A

*Australian Model*

Chassis No. SCC-B22A-A

*West Germany Model*

Chassis No. SCC-B19A-A

### SPECIFICATIONS

**Note:** The service manuals for RM-668 have been issued separately.

Color system PAL, SECAM, NTSC and NTSC<sub>4.43</sub> systems, switched automatically

Picture tube Trinitron tube  
Approx. 54.5 cm (21 inches)  
(50.6 cm picture measured diagonally)  
100-degree deflection, AG pitch 0.55 mm

Resolution Video input: 420 TV lines  
RGB inputs: 640 × 200 dots  
(2000 characters)

Color temperature 9300°K

Frequency response 10 MHz (−3 dB, RGB)  
5 MHz (−3 dB, composite video)

Horizontal linearity Less than ±7%

Vertical linearity Less than ±8%

Line pull range Horizontal: +500 Hz  
Vertical: −8 Hz

Overscan of the picture Less than +7%

Convergence Central area: within 1.0 mm  
Periphery: within 1.8 mm

LINE A/B, VTR inputs  
VIDEO IN: LINE A/B: BNC connector  
Composite video, 1 Vp-p ±6 dB, sync negative, 75-ohm termination switchable

VTR: 8-pin connector  
Composite video, 1 Vp-p ±6 dB, sync negative, 75-ohm terminated

AUDIO IN: LINE A/B: Phono jack  
−5 dBs, more than 47 kilohms  
VTR: 8-pin connector, −5 dBs, more than 47 kilohms

LINE A/B outputs (loop-through outputs)

VIDEO: BNC connector

AUDIO: Phono jack

Monitor outputs VIDEO: BNC connector  
Composite video, 1 Vp-p  
AUDIO: Phono jack  
Less than 1 kilohm

Digital RGB inputs RGB: D-sub 9-pin connector  
(See "Signal assignment".)

AUDIO: Phono jack  
−5 dBs, more than 47 kilohms

AV connector 21-pin connector  
(See "Signal assignment".)

Speaker terminals 8 ohms

Control S input/output Minijack, 5 Vp-p

Power output 7 W + 7 W at 8 ohms

Power requirements 220 – 240 V AC, 50/60 Hz

Power consumption 140 W

Dimensions Approx. 516 × 409 × 482 mm (w/h/d)  
incl. projecting parts and controls

Weight Approx. 30.6 kg

#### Supplied accessory

Remote commander RM-668, with 2 R6 batteries..... 1

#### Optional accessories

TV stand SU-538, SU540

Speaker system SS-X6A, APM-X5A

— Continued on page 2 —



# TRINITRON COLOR VIDEO MONITOR

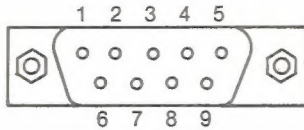
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## SIGNAL ASSIGNMENT

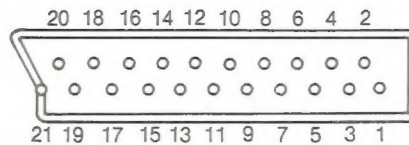
### DIGITAL RGB connector (D-sub 9-pin)



Digital signal (TTL level)

Pin No.	Signal assignment
1	Ground
2	Ground
3	Red input
4	Green input
5	Blue input
6	Intensity input
7	No connection
8	H. sync input (positive/negative)
9	V. sync input (positive/negative)

### AV connector (21-pin)



Pin No.	Signal	Signal level
1	Audio output B (right)	Standard level: 0.5 Vrms Output impedance: Less than 1 k ohm*
2	Audio input B (right)	Standard level: 0.5 Vrms Input impedance: More than 10 k ohms*
3	Audio output A (left)	Standard level: 0.5 Vrms Output impedance: Less than 1 k ohm*
4	Ground (audio)	
5	Ground (blue)	
6	Audio input A (left)	Standard level: 0.5 Vrms Input impedance: More than 10 k ohms*
7	Blue input	0.7 V $\pm$ 3 dB, 75 ohms, positive
8	Function select (AV control)	High state (9.5 – 12 V): Peri mode Low state (0 – 2 V): TV mode Input impedance: More than 10 k ohms Input capacitance: Less than 2 nF

Pin No.	Signal	Signal level
9	Ground (green)	
10	Open	
11	Green input	(Same as Pin 7)
12	Open	
13	Ground (red)	
14	Ground (blanking)	
15	Red input	(Same as Pin 7)
16	Blanking input	High state (1 – 3 V) Low state (0 – 0.4 V) Input impedance: 75 ohms
17	Ground (video output)	
18	Ground (video input)	
19	Video output	1 V $\pm$ 3 dB, 75 ohms, positive Sync: 0.3 V ( $\pm$ 3 dB)
20	Video input	1 V $\pm$ 3 dB, 75 ohms, positive Sync: 0.3 V ( $\pm$ 3 dB)
21	Common ground (plug, shield)	

\* at 20 Hz – 20 kHz

Design and specifications subject to change without notice.

## TROUBLESHOOTING

If these symptoms occur when you begin operation, follow the suggestions below.


SYMPTOMS	CORRECTIONS
No controllable keys although the POWER switch is turned on.	• Press the CONTROL key.
No indication appears although the CONTROL key is pressed.	• Set the MANUAL CONTROL switch on the rear panel to ON.
Remote control is not possible.	• Set the REMOTE CONTROL switch on the rear panel to ON.

If the problem still cannot be solved, contract your authorized Sony dealer.

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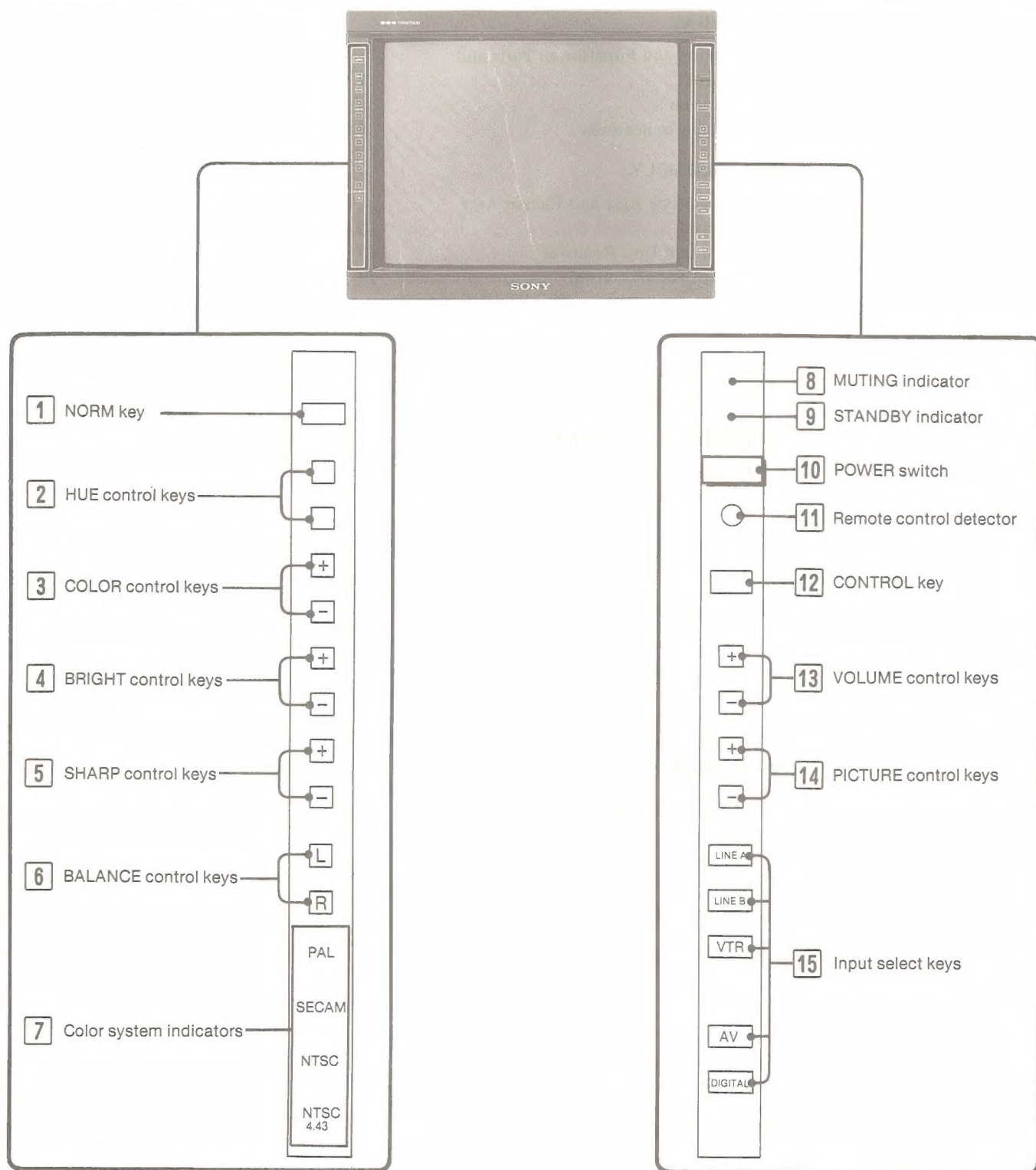
### SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

## SECTION 1 GENERAL

### 1-1. LOCATION AND FUNCTION OF PARTS AND CONTROL

#### FRONT PANEL



• Press CONTROL key after power is turned on to illuminate the control keys or indicators.

The following control keys are effective only when MANUAL CONTROL switch on the rear panel is set to ON.



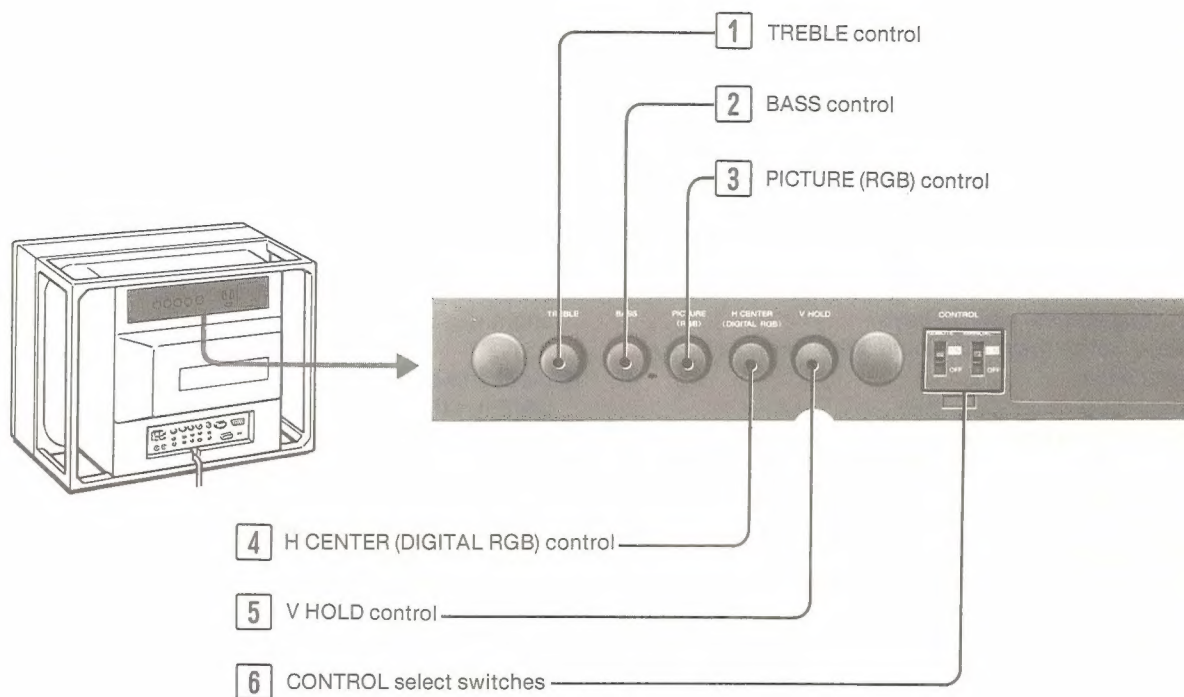
- 1 NORM (normal) key**  
Press this key to return to the standard setting.  
• This key is effective only for the control keys on the left.
- 2 HUE control keys**  
Press the GRN (green) key to make the skin tones greenish or the PUR (purple) key to make it purplish.  
• These control keys are effective for the NTSC and NTSC<sub>4.43</sub> color systems only.
- 3 COLOR control keys**  
Press the + key to make the color intensity vivid or the – key to make it pale.
- 4 BRIGHT (brightness) control keys**  
Press the + key to make the picture brighter or the – key to make it darker.
- 5 SHARP (sharpness) control keys**  
Press the + key to obtain a sharp picture or the – key to obtain a soft picture.
- 6 BALANCE control keys**  
Press the L key to increase the sound volume of the left speaker or the R key to increase the sound volume of the right speaker.
- 7 Color system indicators**  
**PAL, SECAM, NTSC, NTSC<sub>4.43</sub>**  
The color system of the input signal is automatically selected and the corresponding indicator illuminates. When the input signal is monochrome, no color system indicator illuminates.
- 8 MUTING indicator**  
Illuminates while the sound is muted.  
• Muting is controlled only by the Remote Commander.
- 9 STANDBY indicator**  
Illuminates when the power is turned off by the Remote Commander.
- 10 POWER switch**  
Press this switch to turn the monitor on.  
Press this switch again to turn it off.  
• When the monitor is turned on, the settings of the monitor are the same as when it was last turned off.  
• For a few seconds after turning on the monitor the color of picture may vary because the white balance is adjusted at this time. This is not a problem.
- 11 Remote control detector**  
The beam from the Remote Commander is received here.
- 12 CONTROL key**  
Press this key to illuminate the keys and indicators on the front panel.  
Press this key again to extinguish them.
- 13 VOLUME control keys**  
Press the + key to raise the volume or the – key to lower it.
- 14 PICTURE control keys**  
Press the + key to make the contrast, color intensity and brightness stronger or the – key to make them weaker.
- 15 Input select keys**  
**LINE A, LINE B, VTR, AV, DIGITAL**  
Select the input source connected to the LINE A, LINE B, VTR, AV or DIGITAL RGB connector.  
When a key is pressed:  
• it blinks if the other indicators and keys on the front panel illuminate.  
• it illuminates if they are extinguished.

#### Key illumination

For the keys **1** through **7**, **13** and **14**:

- While each key is pressed, it blinks, indicating that adjustment is going on.
- During adjustment, if the adjustment value reaches the limit, the blinking speed becomes slower.

## REAR PANEL



### 1 TREBLE control

Turn clockwise for more treble (high tone), or counterclockwise for less.

### 2 BASS control

Turn clockwise for more bass (low tone), or counterclockwise for less.

### 3 PICTURE (RGB) control

Adjust the contrast of the RGB signals connected to the AV connector or the DIGITAL RGB connector.

### 4 H CENTER (DIGITAL RGB) (horizontal centering) control

When the picture of DIGITAL RGB input is decentered horizontally, correct it with this control.

### 5 V HOLD (vertical hold) control

When the picture rolls vertically, correct it with this control.

### 6 CONTROL select switches

Normally set to ON.

#### REMOTE CONTROL switch

Set this switch to ON to control the monitor with a Remote Commander.

If this switch is set to OFF, the remote control is not possible.

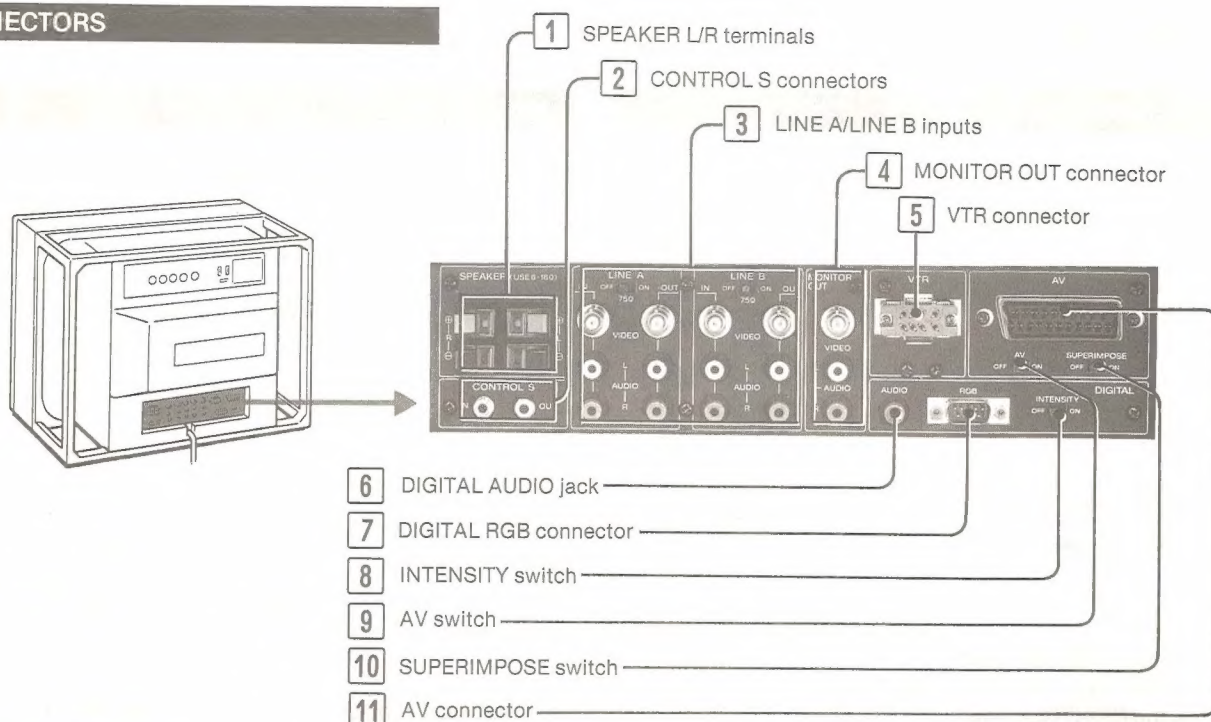
#### MANUAL CONTROL switch

Set this switch to ON to control the monitor manually. To make the manual control of the control keys or switches on the front panel impossible, extinguish the indicators by pressing the CONTROL key on the front panel and set this switch to OFF.

(However remote control is possible if the REMOTE CONTROL switch is set to ON.)



## CONNECTORS



### 1 SPEAKER L/R terminals

Connect to speakers with 8 to 16 ohm impedance.

### 2 CONTROL S IN/OUT connectors

Connect to the CONTROL S connectors of a VTR or another monitor.  
It is then possible to control the whole system with a single Remote Commander.

### 3 LINE A/LINE B inputs

**VIDEO IN connector (BNC type)**

**AUDIO L/R IN jacks (phono jack)**

Connect to the video and audio outputs of a VTR or a camera.

**VIDEO OUT connector (BNC type)**

**AUDIO L/R OUT jacks (phono jack)**

Loop-through outputs of the IN connector and jacks.  
Connect to the video and audio inputs of another monitor.

### 75-ohm termination switch

When only the VIDEO IN connector is used (nothing is connected to the VIDEO OUT connector), set this switch to ON.

When both connectors are used together for a loop-through connection, set this switch to OFF.

### 4 MONITOR OUT connectors

**VIDEO connector (BNC type)**

**AUDIO L/R jacks (phono jacks)**

The video and audio signals supplied from the LINE A, LINE B, VTR or AV input selected by the front panel input select keys are output from these connectors.  
Connect to the video and audio inputs of another monitor, VTR, etc.

### 5 VTR connector (8-pin)

Connect to a VTR with an 8-pin TV connector.

### 6 DIGITAL AUDIO jack (phono jack)

Connect to the audio output of an audio source to listen to the sound from the connected audio source while viewing the picture from the DIGITAL RGB connector.

### 7 DIGITAL RGB connector (9-pin, D-sub)

Connect to the digital RGB output of a microcomputer.

### 8 INTENSITY switch

Normally set to OFF. When a microcomputer provided with intensity output is connected, set to ON for 16-color display.

### 9 AV switch

Set to ON so that the monitor is automatically switched to the AV input when a signal is input from the AV connector, taking priority over the LINE A, LINE B or VTR input previously selected by the input select keys on the front panel. Set to OFF to select the AV input manually by pressing the AV input select key.

### 10 SUPERIMPOSE switch

Normally set to ON.

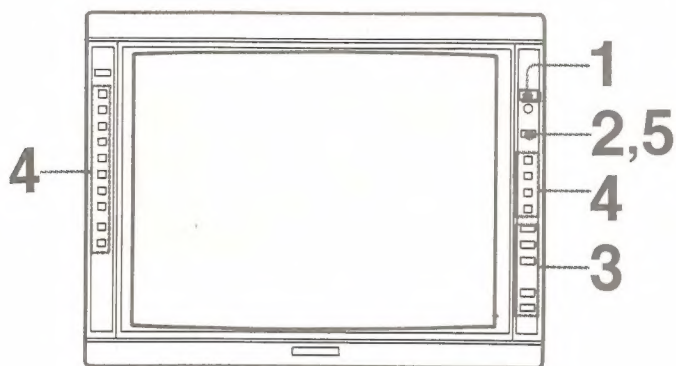
Set to OFF to display the analog RGB signal from the microcomputer connected to the AV connector.

### 11 AV connector (21-pin)

Connect to the 21-pin multiconnector of an 8 mm video cassette recorder or the analog RGB multioutput connector of a microcomputer.

## 1-2. OPERATION

### DISPLAYING THE PICTURE



- 1** Depress the POWER switch.  
One of the input select keys illuminates.
- 2** Press the CONTROL key.  
The selected input select key blinks and all control keys on the front illuminate.  
(If the control keys do not appear, set the MANUAL CONTROL switch on the rear to ON.)
- 3** Press the desired input select key.  
The pressed key blinks and the picture from the selected input is displayed on the screen and the sound is heard through the speakers.  
(For selecting the AV or DIGITAL input, see "Notes on input selection".)
- 4** Adjust the picture and sound.
- 5** Press the CONTROL key to extinguish the controls keys so that only the selected input select key illuminates.

### SUPERIMPOSING

To superimpose the data from the microcomputer connected to the AV connector over the picture, proceed as follows.  
(The data should be processed for superimposition on the microcomputer.)

- 1** Set the SUPERIMPOSE switch to ON.
- 2** Press the LINE A, LINE B or VTR input select key to display the picture on which the data is to be superimposed on the monitor screen.
- 3** Press the AV input select key.  
The data is superimposed over the picture.
- 4** Adjust the contrast of the superimposed data with the PICTURE (RGB) control.

### NOTES ON INPUT SELECTION

#### AV input and SUPERIMPOSE switch

Set the SUPERIMPOSE switch on the rear as follows, according to the signal supplied to the AV connector.

SUPERIMPOSE switch	Signal to be displayed
ON	<ul style="list-style-type: none"> <li>To display the composite video signal from an 8 mm video cassette recorder, etc.</li> <li>To perform superimposition. (See "SUPERIMPOSING".)</li> </ul>
OFF	<ul style="list-style-type: none"> <li>To display the analog RGB signal from a microcomputer, etc. In this case, the sync signal should be supplied to pin 20 of the AV connector.</li> </ul>

- When the AV input select key is pressed with the SUPERIMPOSE switch ON, the previously selected LINE A, LINE B or VTR input select key blinks together with the AV key.
- When it is pressed with the SUPERIMPOSE switch OFF, only the AV key blinks.

#### AV input and AV switch

When the AV switch on the rear is set to ON, the monitor is automatically switched from the LINE A, LINE B or VTR input to the AV input if a signal is input to the AV connector.  
Set the AV switch to OFF to select the AV input manually by pressing the AV input select key.

#### DIGITAL input

- To display the digital RGB signal from a microcomputer provided with intensity output in 16 colors, set the INTENSITY switch on the rear to ON.
- If necessary, center the picture from the DIGITAL RGB connector with the H CENTER control on the rear panel.

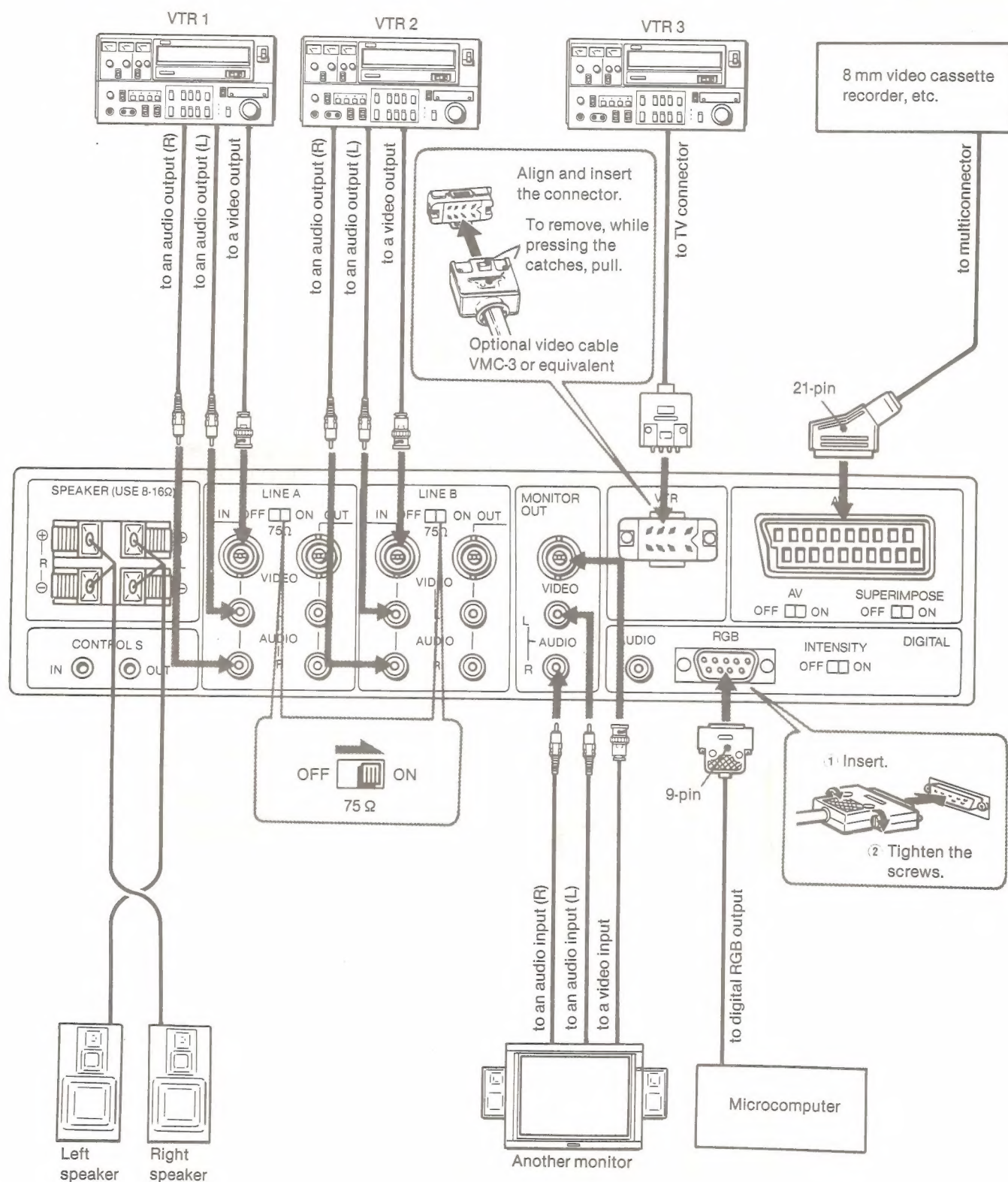
#### Note

The COLOR, HUE and SHARP control keys do not function when the DIGITAL input is selected or the AV input is selected with the SUPERIMPOSE switch OFF.



### 1-3. SYSTEM CONNECTIONS

#### CONNECTION DIAGRAM



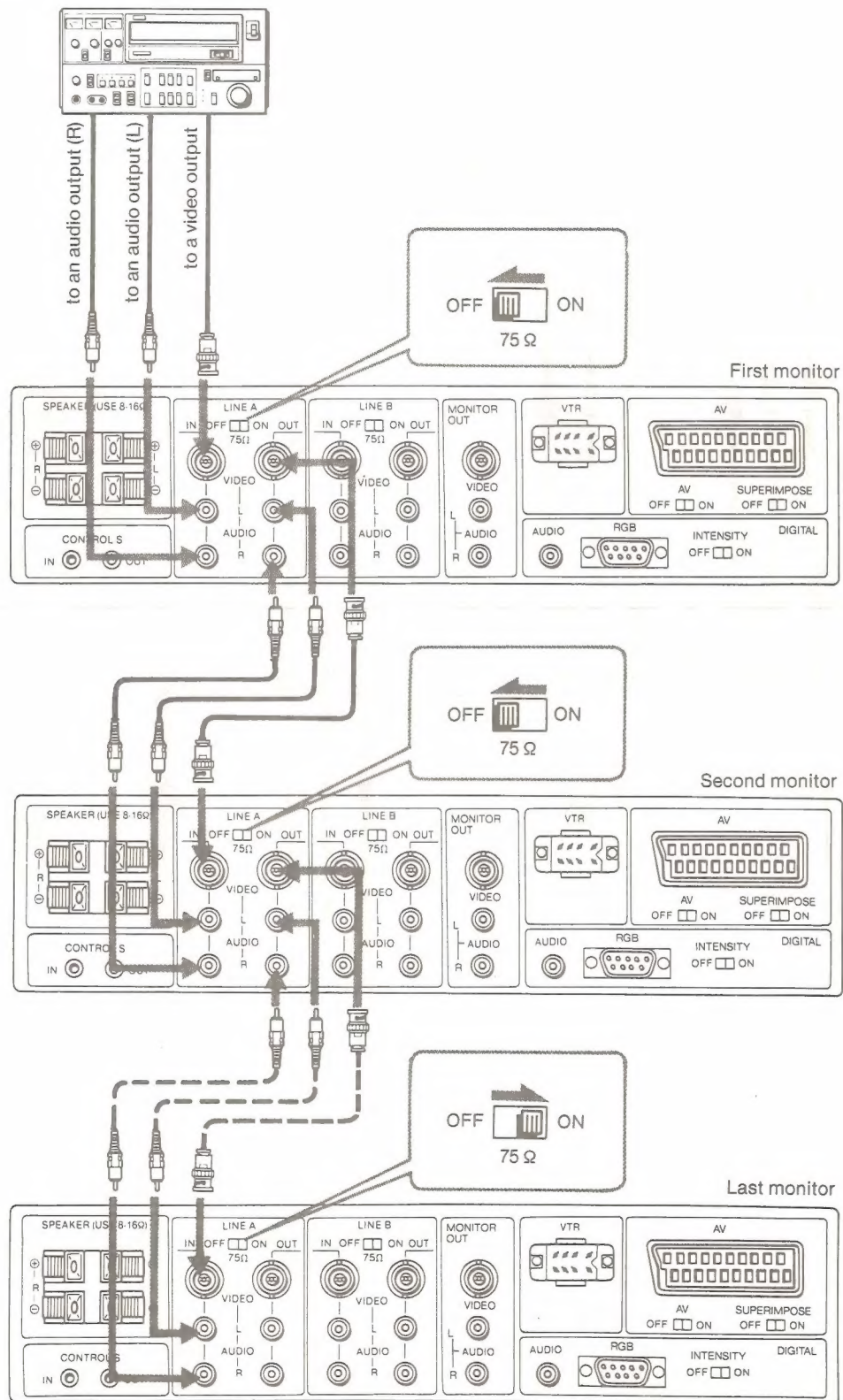
#### Note

- When a microcomputer has an analog RGB output connector, connect it to the AV connector.

- When a microcomputer has only a composite video output connector, connect it to the LINE A or LINE B VIDEO IN connector.

## CONNECTING SEVERAL MONITORS

A loop-through connection is convenient for monitoring the same signal on ther monitors. Up to 10 monitors can be connected. It is recommended to use a signal distributor when several monitors are connected.

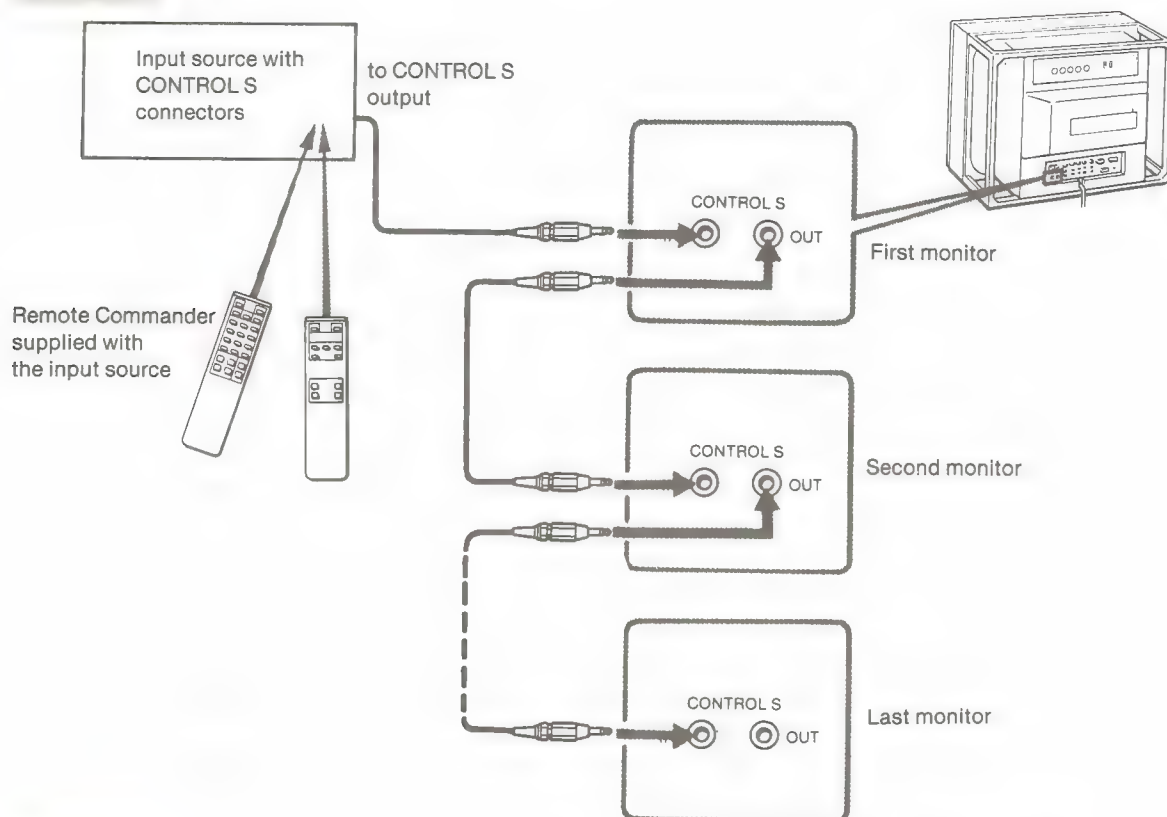




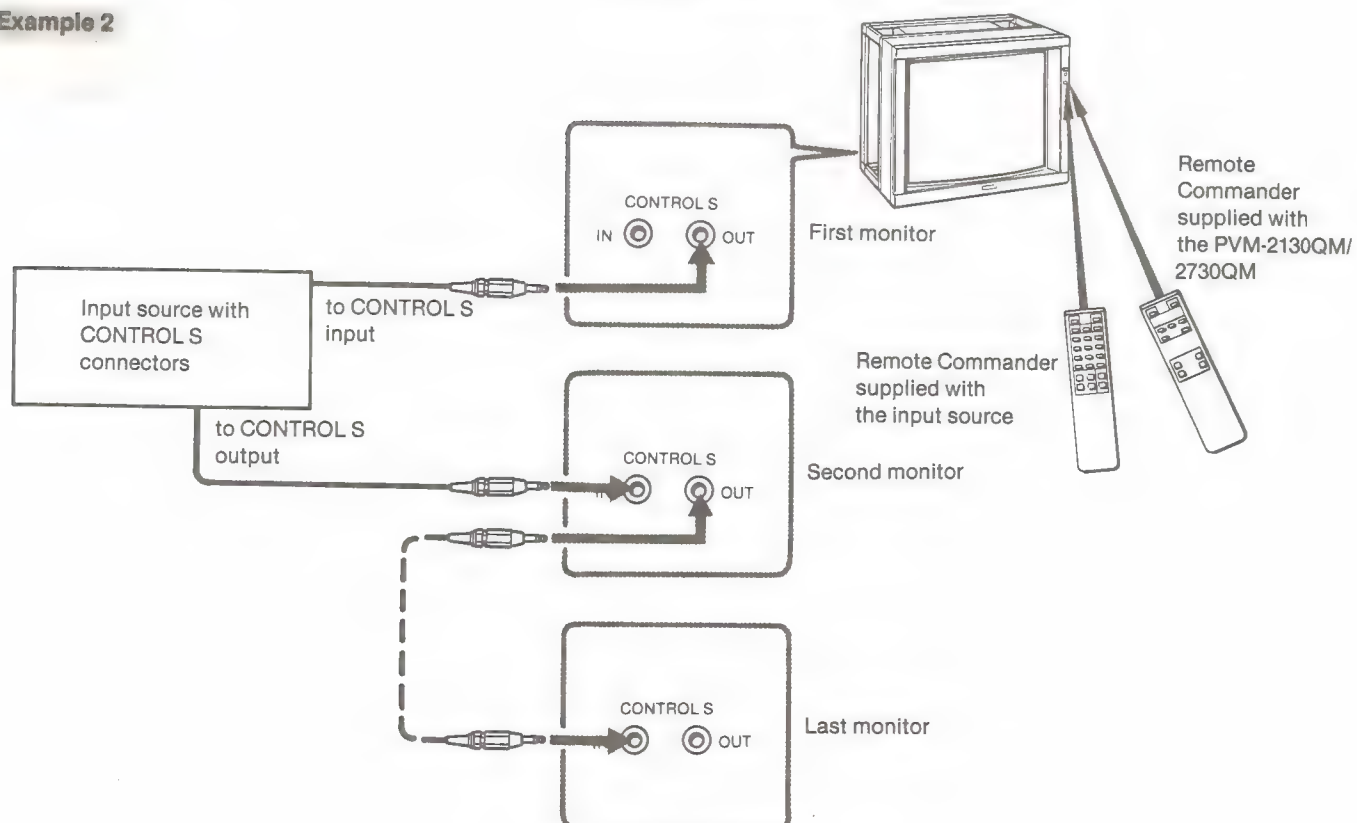
## CONTROLS CONNECTION

The following connections allow remote control of several monitors and a VTR through a single monitor.

### Example 1



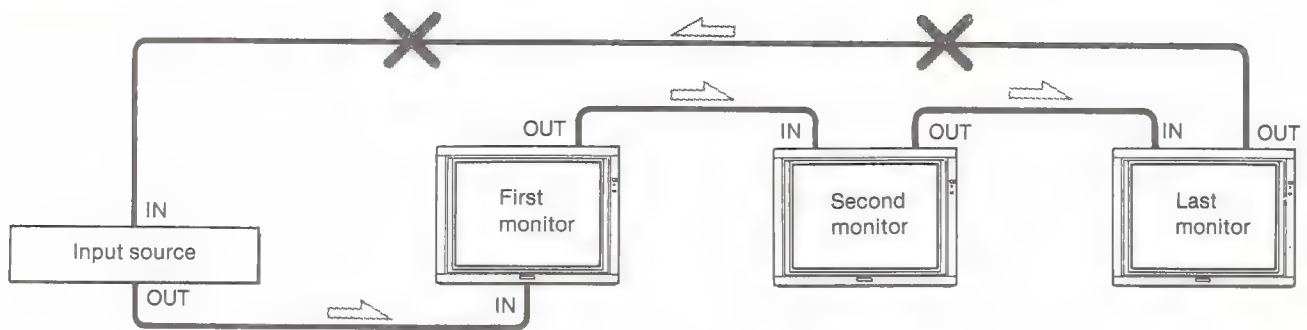
### Example 2



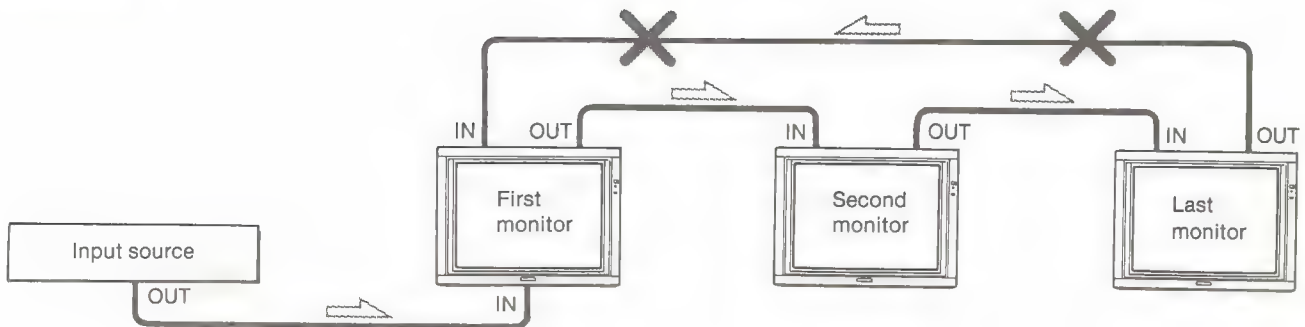
**Note**

Do not use the following loop connections.

**Example 1**



**Example 2**

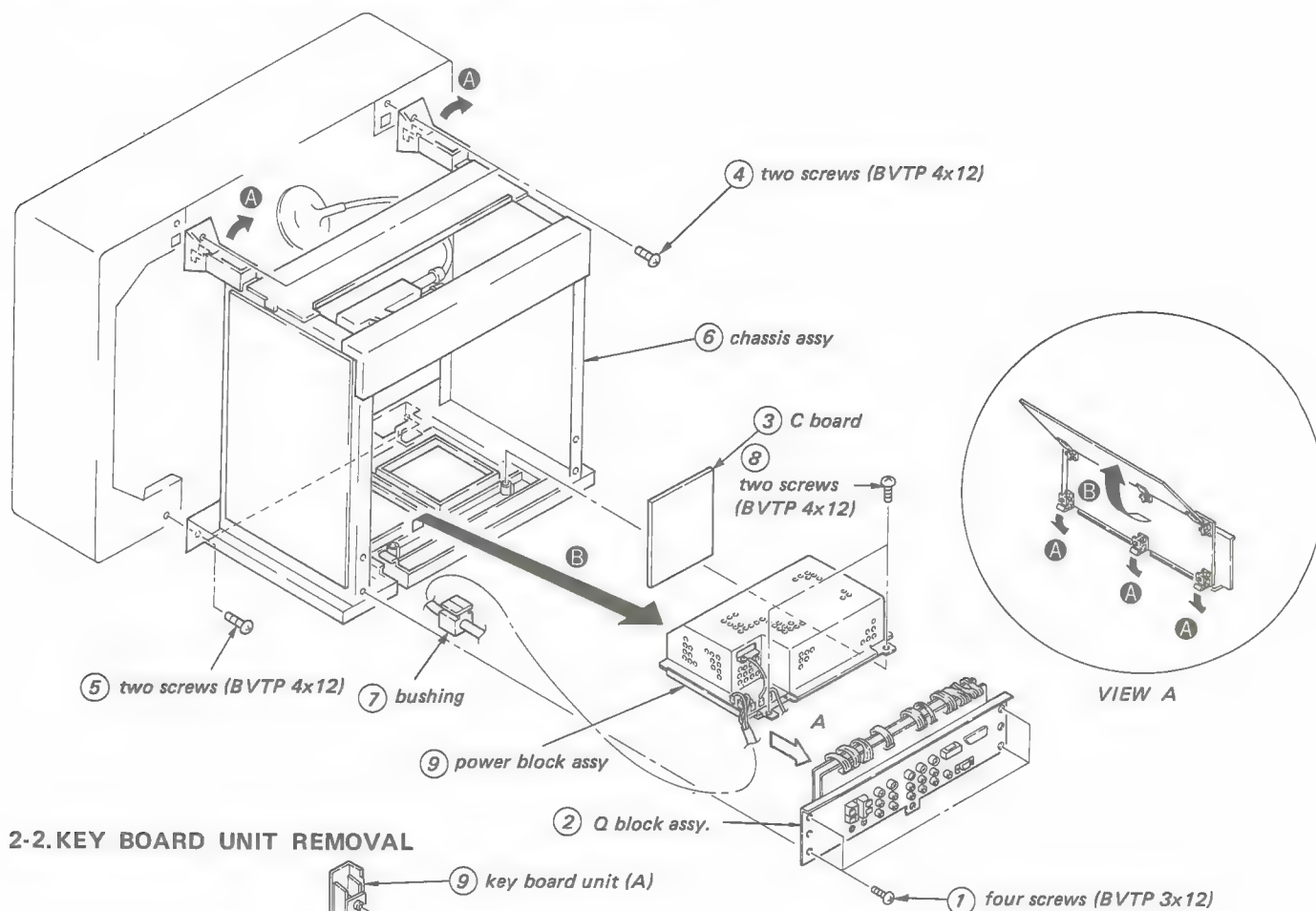


 CONTROL S signal flow

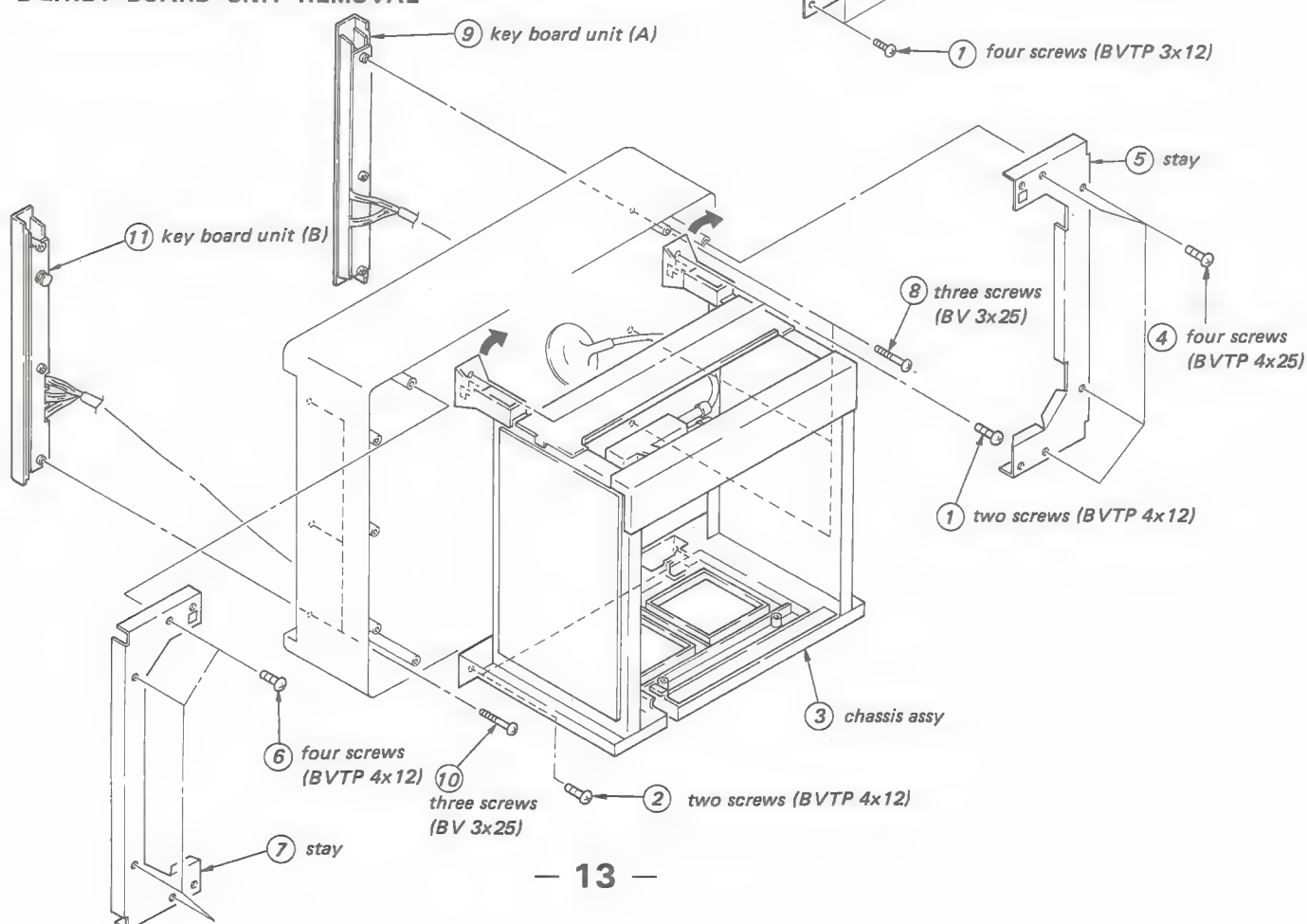


## SECTION 2 DISASSEMBLY

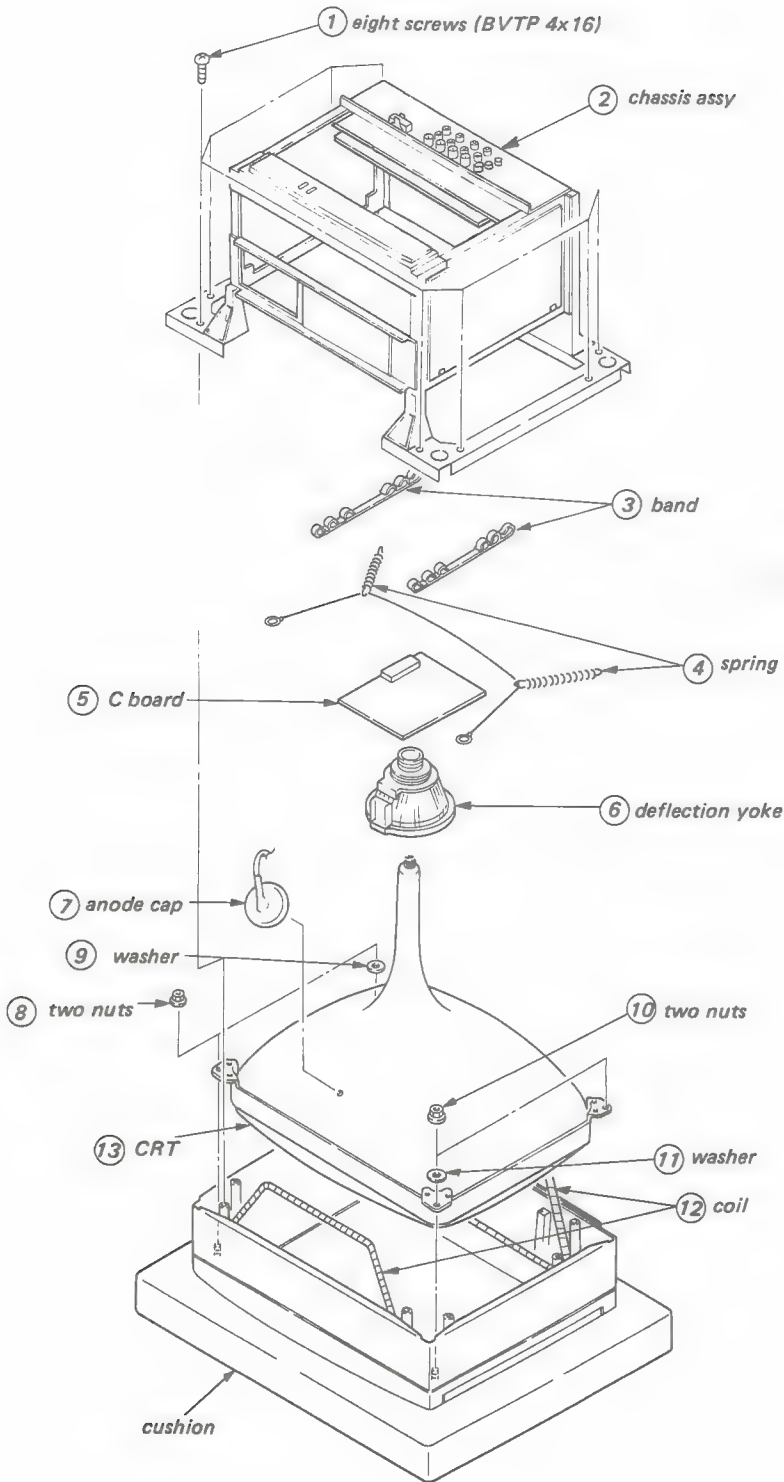
### 2-1. POWER BLOCK ASSY AND CHASSIS ASSY REMOVAL



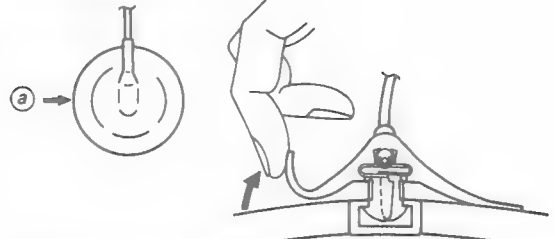
### 2-2. KEY BOARD UNIT REMOVAL



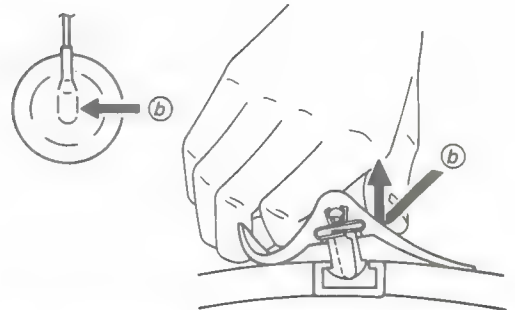
## 2-3. PICTURE TUBE REMOVAL



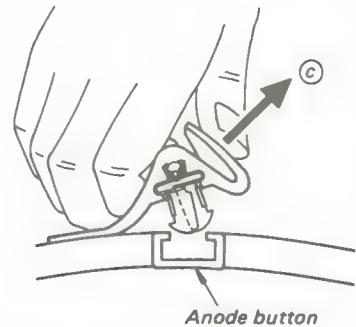
### • Removing Procedures



- ① Turn up one side of the rubber cap in the direction indicated by the arrow (a)



- ② Using a thumb, pull up the rubber cap firmly in the direction indicated by the arrow (b)



- ③ When one side of the rubber cap is separated from the anode button, the anode cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow (c)



## SECTION 3

### SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

Perform the adjustments in order as follows:

1. Beam Landing
2. Convergence
3. White Balance

**Note:** Test Equipment Required

1. Color-bar/Pattern Generator
2. Degausser

#### 3-1. BEAM LANDING

Preparation:

- Input the RASTER pattern.
  - Before starting, degauss the entire screen.
1. Turn on set power supply and input a RASTER signal.
  2. Evenly degauss the entire screen.
  3. Loosen the deflection yoke mounting screw, and set the purity control to the center as shown in Figure 3-1.
  4. Input a red signal.
  5. Move the deflection yoke back, and adjust the purity control so that RED is in the center and GREEN and BLUE are at the sides, evenly. (Figure 3-2.)
  6. Move the deflection yoke forward so that the entire screen is red.
    - If the deflection yoke is pushed all the way to the CRT then moved slightly back, landing adjustment is easier.
  7. Substitute GREEN, then BLUE for RED in step 4 and check landing.
  8. Rotate RED, GREEN and BLUE once each and check landing.
  9. When landing is not right, adjust the purity control and use magnets as shown in Figure 3-3, then repeat steps 7 and 8.
  10. When a magnet is used, be sure to perform step 2, and tighten deflection yoke mounting screw loosely.

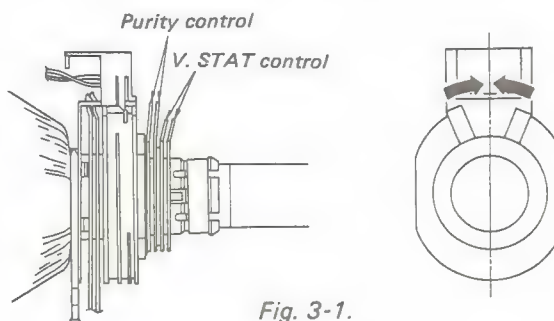


Fig. 3-1.

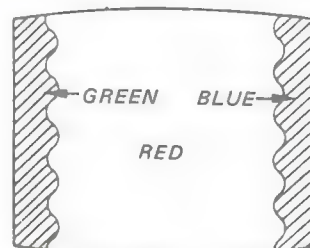


Fig. 3-2.

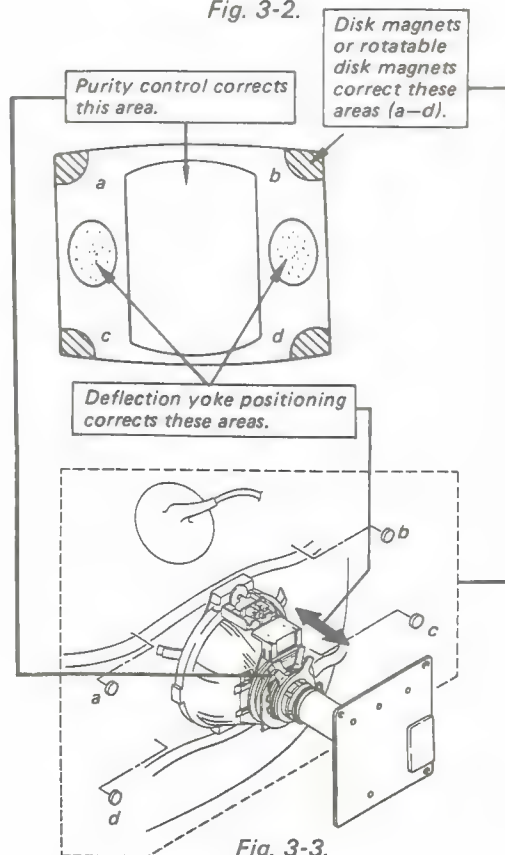


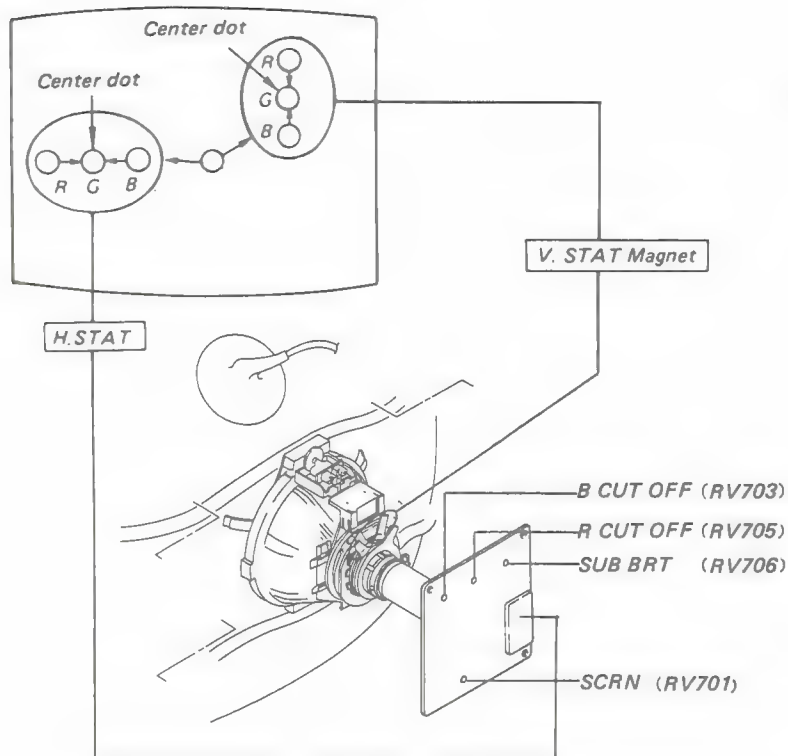
Fig. 3-3.

### 3-2. COVERAGE

#### Preparation:

- Before starting, perform FOCUS, H. SIZE, V. SIZE and V. LIN adjustments.
- Set BRIGHTNESS control to fully counterclockwise.
- Feed in the dot pattern.

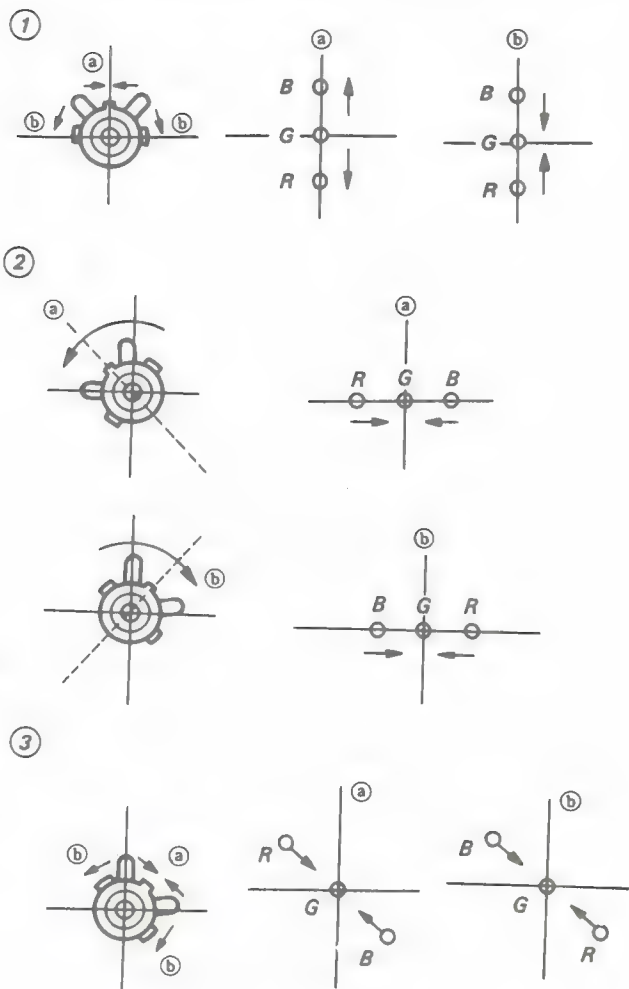
#### (1) Horizontal and Vertical Static Convergence



1. Adjust H. STAT VR to coincide red, green and blue dots on the center of screen (Horizontal movement)
  2. Adjust V. STAT magnet to coincide red, green and blue dots on the center of screen (Vertical movement)
  3. If the red, green and blue dots do not coincide on the center of screen with H. STAT VR, perform horizontal convergence adjustment using H. STAT VR and V. STAT magnet as shown below. (In this case, H. STAT VR and V. STAT magnet effect each other.)
- Tilt the V. STAT magnet and adjust static convergence to open or close the V. STAT magnet.



4. When the V. STAT magnet is moved in the direction of arrow (a) and (b), Red, Green and Blue dots move as shown below.

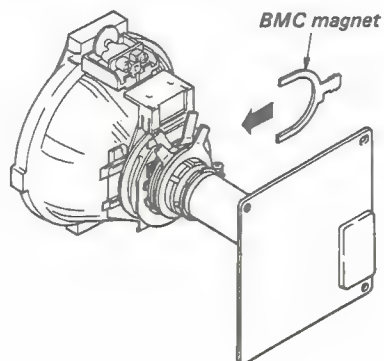


If blue dot does not coincide with red and green dots, perform following steps.

Move BMC magnet (a) to correct insufficient H. static convergence.

Rotate BMC magnet (b) to correct insufficient V. static convergence.

In either case, repeat Beam Landing Adjustment.





## (2) Dynamic Convergence Adjustment

### Preparation:

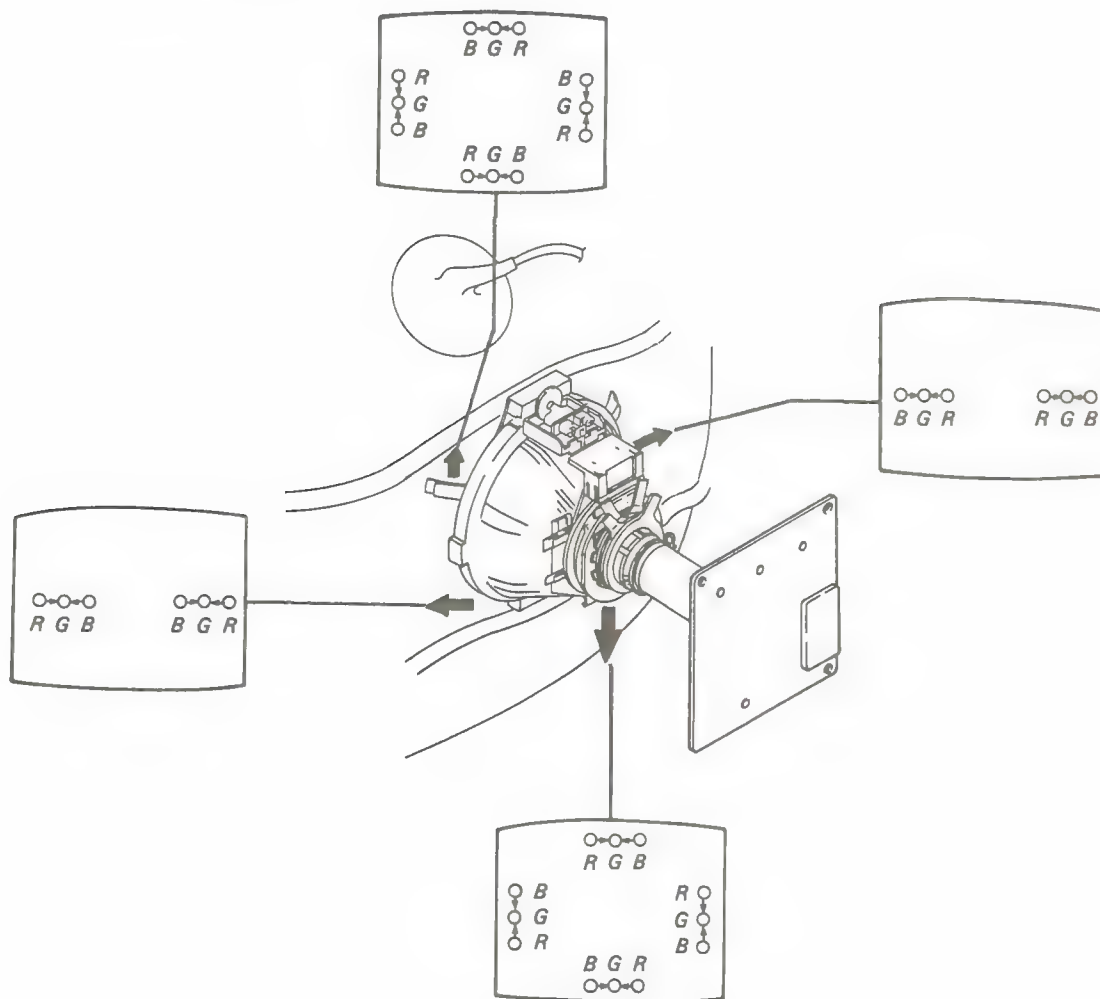
- Before starting, perform Horizontal and Vertical Static Convergence Adjustment.

1. Loosen deflection yoke screw.
2. Remove deflection yoke spacers.

3. Move the deflection yoke for best convergence as shown below.

4. Tighten the deflection yoke screw.

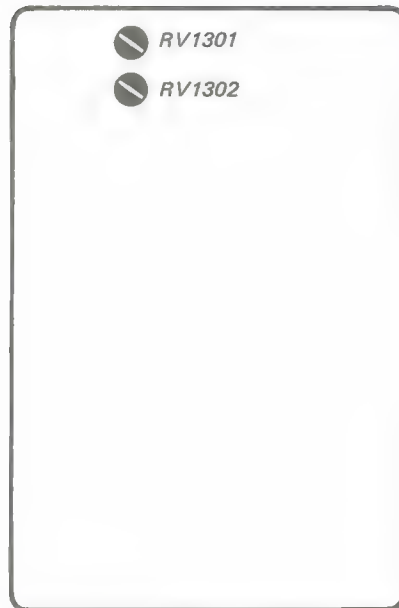
5. Install the deflection yoke spacers.



### 3-3. WHITE BALANCE ADJUSTMENT

- 1) SCREEN ( $G_2$ ) adjustment
  1. Confirm that  $G_1$  line voltage is  $30 \pm 5$  Vdc.
  2. Adjust CUT OFF(R,B) so that R,B cathode voltage becomes 180 V DC.  
Adjust with  $G_2$  VT immediately prior to the disappearing of the luminescent line.
- 2) W/B adjustment
  1. Input a all white signal.
  2. Set the PICTURE control to minimum and turn the BRIGHT control mechanical center.
  3. Set R CUT OFF(R,B) and RV703 (B CUT OFF) to minimum.
  4. Turn RV701 (SUB BRT) slowly to obtain a faintly visible cross-hatch.  
Note the color tjt first becomes visible by turning RV701.
  5. Adjust the other two BKG controls for best white balance (neutral gray) of the faint cross-hatch.
  6. Set the PICTURE control fully clockwise.  
Observe the screen and adjust the RV1301 (G,H/L), RV1302 (B,H/L) controls for best white balance. (B Board)
  7. Repeat steps 1, through 7.

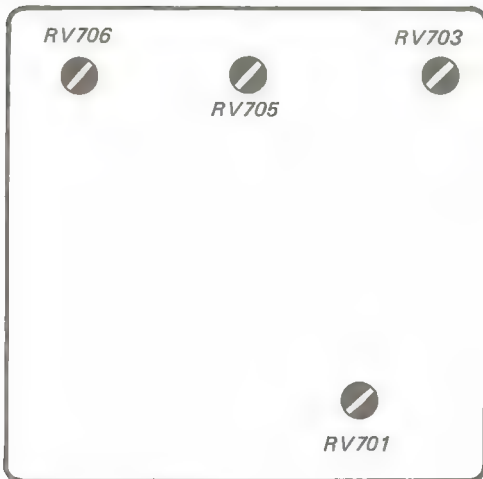
**B Board**



(Component side)

*RV1301 (G.H/L)*  
*RV1302 (B.H/L)*

**C Board**



(Component side)

*RV703 (B CUT OFF)*  
*RV705 (R CUT OFF)*  
*RV706 (SUB. BRT)*  
*RV701 (SCRN)*

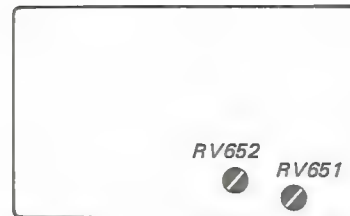
## SECTION 4 CIRCUIT ADJUSTMENTS

### 4-1. FA BOARDS ADJUSTMENT

#### +B Line Adjustment

1. Supply 220V ac to with variable auto-transformer.
2. Adjust RV651 so that the +B line is  $140V \pm 0.5V$ .
3. Adjust RV652 so that the pin ① or IC651 is  $32 \pm 0.1V$ .

#### FA Board



(Component side)

### 4-2. D BOARD ADJUSTMENTS

#### Horizontal Position Adjustment

1. Check that H center moves to the right and left with horizontal position VR (RV555), then adjust horizontal position to center.

#### Picture Distortion Adjustment

1. Picture distortion adjustment  
Input a signal equivalent to a crosshatch signal.

#### PIN PHASE (RV553)



#### PIN AMP (RV552)



2. Adjust RV554 (H.SIZE) so that H.SIZE is best.
3. Adjust RV555 (H.CENT) so that horizontal position is center.

#### V.SIZE V.CENT

Adjust RV503 and RV509 for a best vertical SIZE Picture.

#### H.FREQ Adjustment

1. Input a color bar signal and short between IC501 pins ① and ①①.  
Also short board IC401 pins ③⑤ and ③⑥.
2. Adjust H.FREQ VR (RV501) so that picture flow is as shown in Figure.
3. After adjustment, remove the connections in step ①.

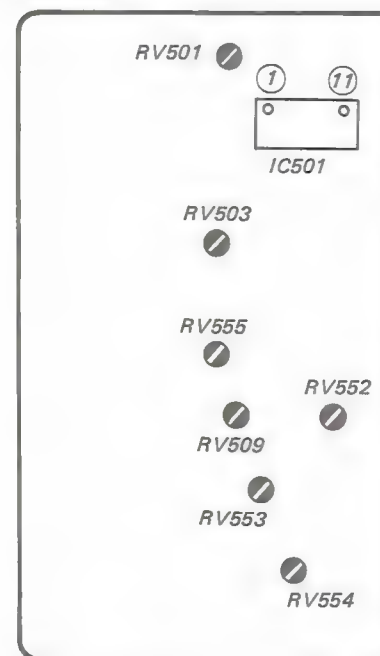


fo low

fo correct  
(fo=15.734Hz)

fo high

#### D Board



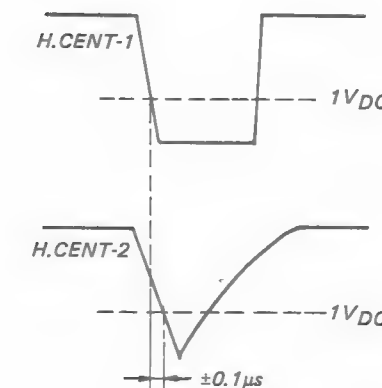
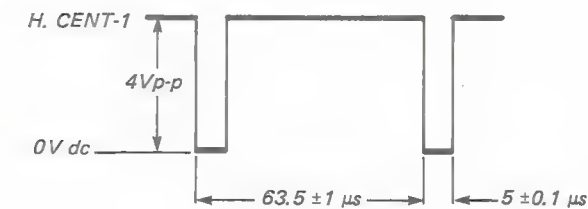
(Component side)

RV501 (H.FREQ)  
IC501 1 11 (H FREQ)  
RV503 (V.SIZE)  
RV555 (H.CENT)  
RV552 (PIN AMP)  
RV509 (V.CENT)  
RV553 (PIN PHASE)  
RV554 (H.SIZE)

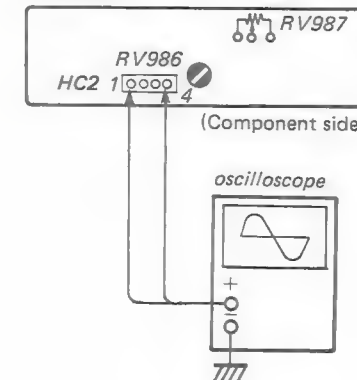
### 4-3. HC BOARD ADJUSTMENT

#### H. CENTER Adjustment (DIGITAL RGB)

1. Connect to the digital RGB output connector of a microcomputer.
2. Press to select the RGB mode.
3. Turn the H. CENT VR (RV987--- Rear control panel) to center position.
4. Connect the oscilloscope to pin ④ of HC-2 connector and pin ① of HC-2 connector.
5. Adjust RV986 (H. CENT-2) so that the phase difference level is  $\pm 0.1 \mu\text{sec}$ .



#### HC Board

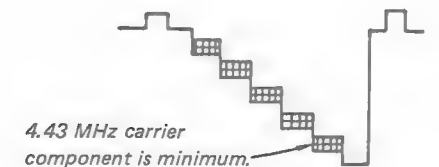


RV986 (H. CENT-2)  
RV987 (H. CENT VR)

### 4-4. B BOARD ADJUSTMENTS

#### Y Chroma Adjustment

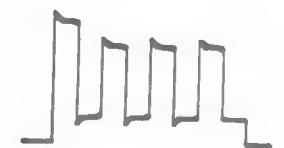
1. Input a PAL color bar signal.
2. Connect an oscilloscope to pin ③⑤ of IC301, and adjust so that chroma component is minimum on pin ③⑤ of IC301 waveform while tracking with L451 (4.43 MHz).



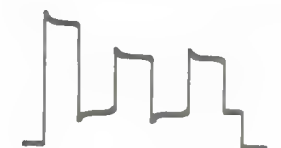
3. Input a NTSC (3.58) color bar signal.
4. Connect an oscilloscope to pin ③⑤ of IC301 and adjust so that chroma component is minimum on pin ③⑤ of IC301 waveform while tracking with L452.

#### COLOR BALANCE Adjustment

1. Input a SECAM color bar signal and set PICTURE to maximum.  
Press "RESET" to set color to standard state.
2. Observe blue output (TP33) waveform on the oscilloscope and adjust L421 (B-Y) so that the black portion of the color bar is the same level as the pedestal.



3. Observe blue output (TP31) waveform on the oscilloscope and adjust L405 (R-Y) so that the black portion of the color bar is the same level as the pedestal.





## SECTION 5 DIAGRAMS

### ANTI-PAL, LINE CRAWLING Adjustment

1. Input a PAL color bar signal and set PICTURE to maximum.  
Press "RESET" to set COLOR, HUE and BRT to standard state.
2. Confirm that there is no color on the first anti-PAL signal frames at the right and left of the picture. If sides while tracking with RV303.
3. Adjust T301 (DAT) for minimum line crawling.
4. Confirm the anti-PAL adjustment in 2, and repeat 3, and 1 if necessary.

### APC Adjustment

#### 4.43 adjustment

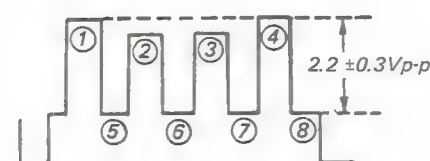
1. Input a PAL color bar signal.
2. Short pin (11) and pin (12) on IC301.
3. Adjust CT443 to get color sync.

#### 3.58 adjustment

4. Input a NTSC (3.58 MHz) color bar signal.
5. Adjust CT358 to get color sync.

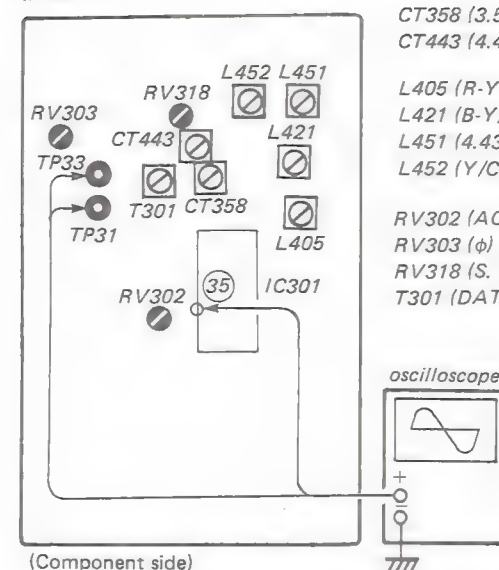
### ACC, HUE CENT Adjustment

1. Input a PAL color bar signal and set PICTURE maximum.
2. Adjust RV302 (ACC ADJ) so that blue output (TP33) waveform is as shown in figure.



3. Input a NTSC (3.58 or 4.43) color bar signal and set PICTURE to maximum.  
Press "RESET" to set COLOR, HUE and BRIGHTNESS to standard state.
4. Adjust RV318 (S. HUE) so that blue output (TP33) waveform is as shown in figure.

B Board



CT358 (3.58)  
CT443 (4.43)

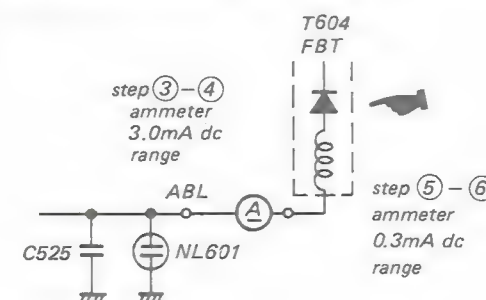
L405 (R-Y)  
L421 (B-Y)  
L451 (4.43 MHz)  
L452 (Y/CHROMA)

RV302 (ACC)  
RV303 (φ)  
RV318 (S. HUE)  
T301 (DAT)

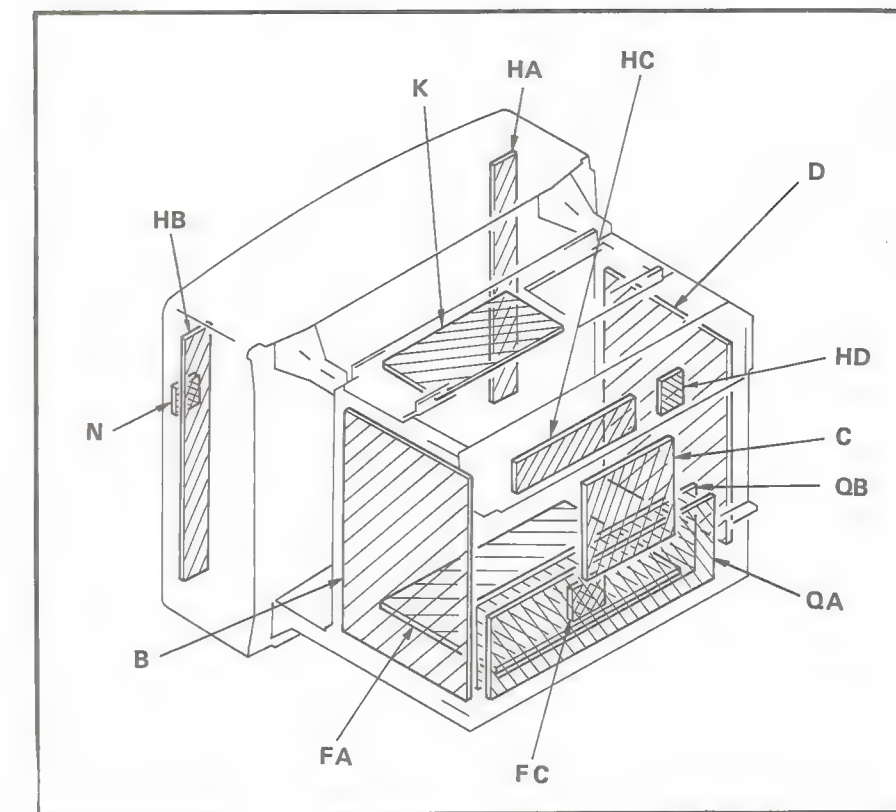
### 4-5. SAFETY CHECK ADJUSTMENT

#### HOLD DOWN ADJUSTMENT (\*R531)

1. Turn the POWER switch ON, and receive entirely white signals and set the PICTURE and BRIGHTNESS control to maximum.
  2. Confirm that the voltage of the IC1510 (1) pin is more than 15.78V DC when the set is operating normally with 120V AC supply.
  3. Adjust ABL current to  $1400 \pm 30 \mu A$  with PICTURE and BRIGHTNESS. (ammeter 3.0mA dc range)
  4. Confirm that there is less than 18.35V DC where by the raster disappears during operation of hold-down circuit. (HOLD DOWN check point of IC1510 (1) pin)
  5. Adjust ABL current to  $210 \pm 3 \mu A$  with PICTURE and BRIGHTNESS. (ammeter 0.3mA dc range)
  6. Confirm that there is less than 19.25V DC where by the raster disappears during operation of hold-down circuit. (HOLD DOWN check point of IC1510 (1) pin)
- Note: If the hold-down circuit starts operating in the above case, switch OFF the POWER of the set immediately.
7. If above steps is not satisfied, select resistance value of R597 and repeat above steps 1 through 6.

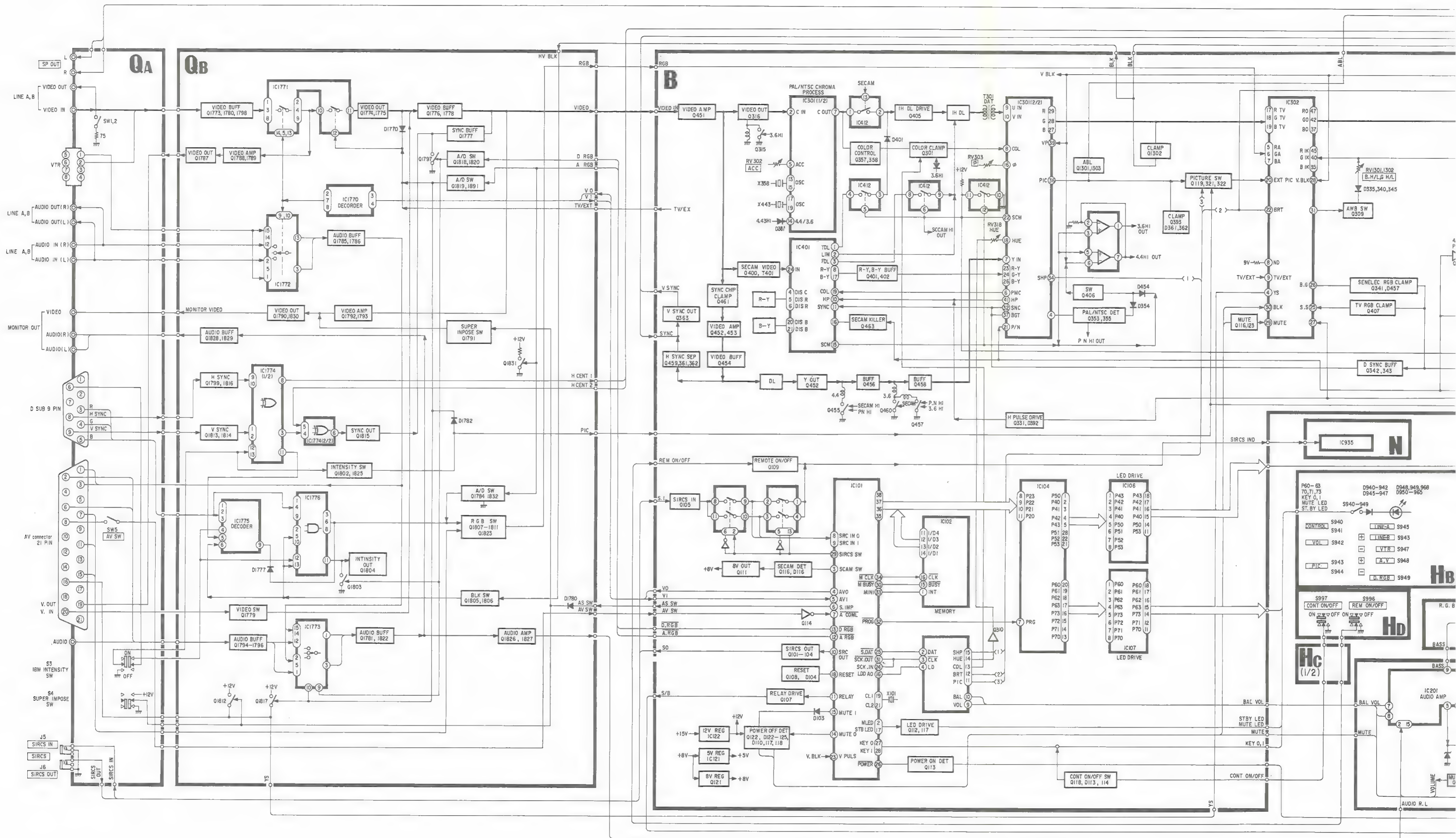


### 5-1. CIRCUIT BOARDS LOCATION

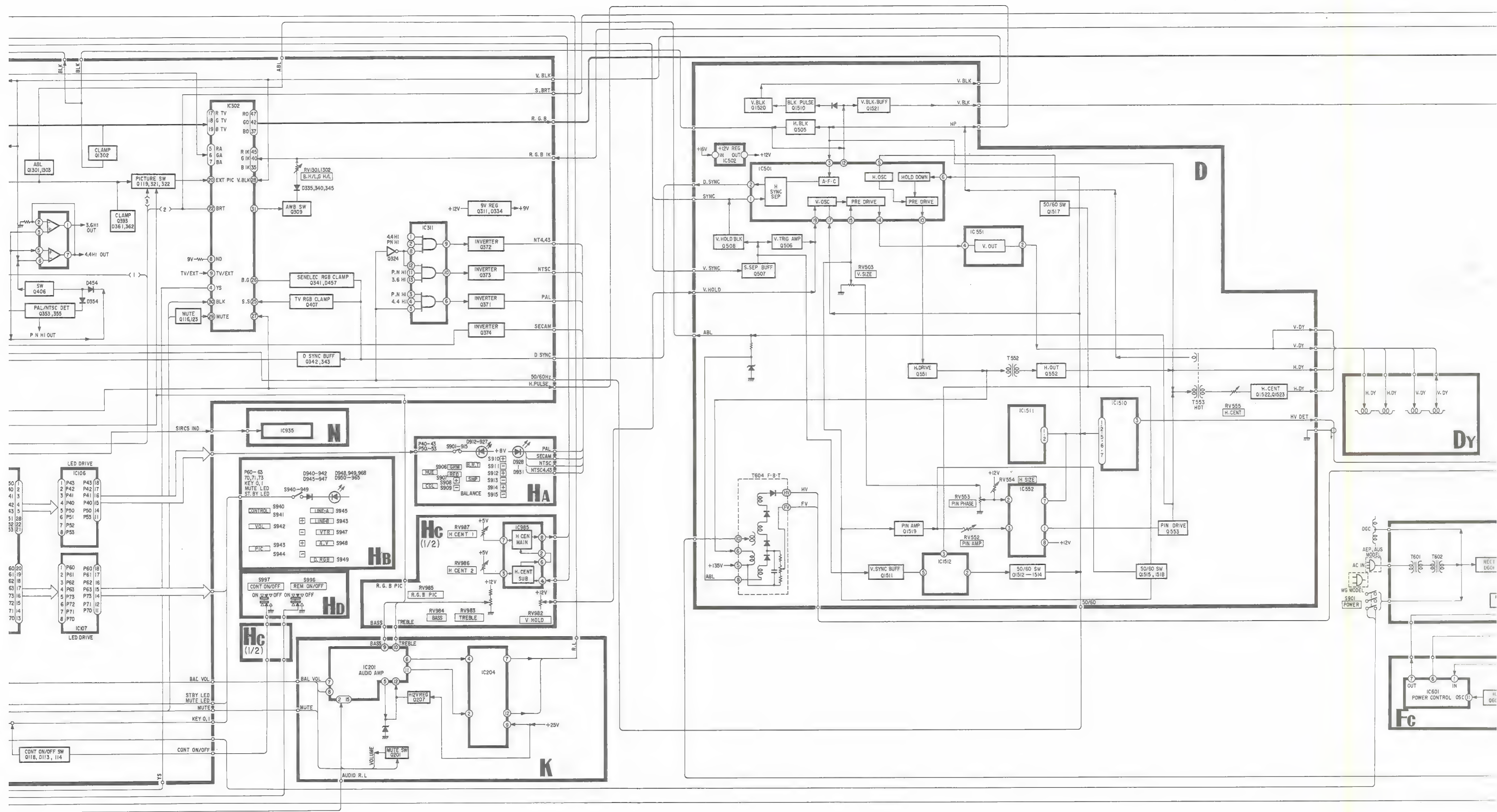


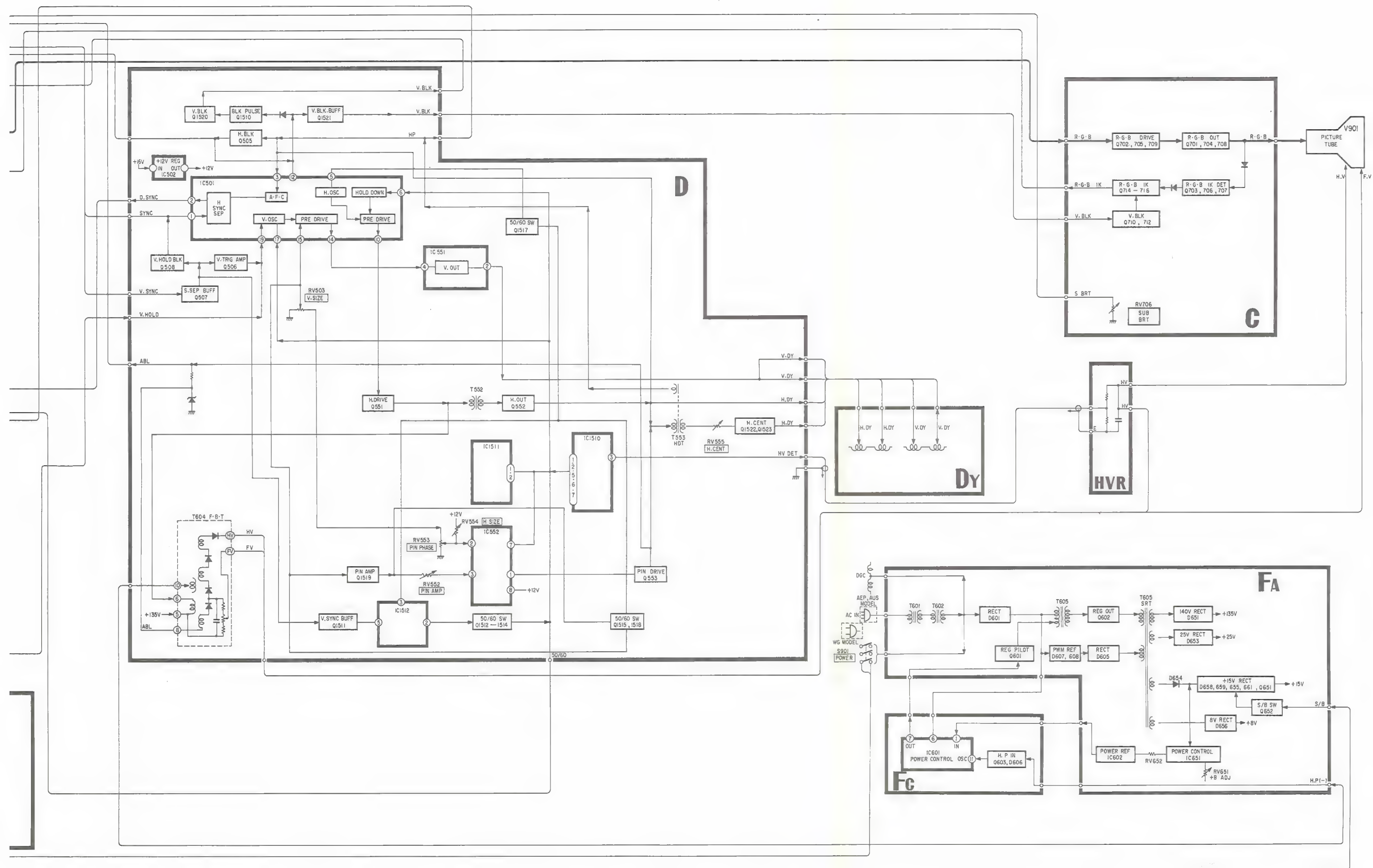


5-2. BLOCK DIAGRAM











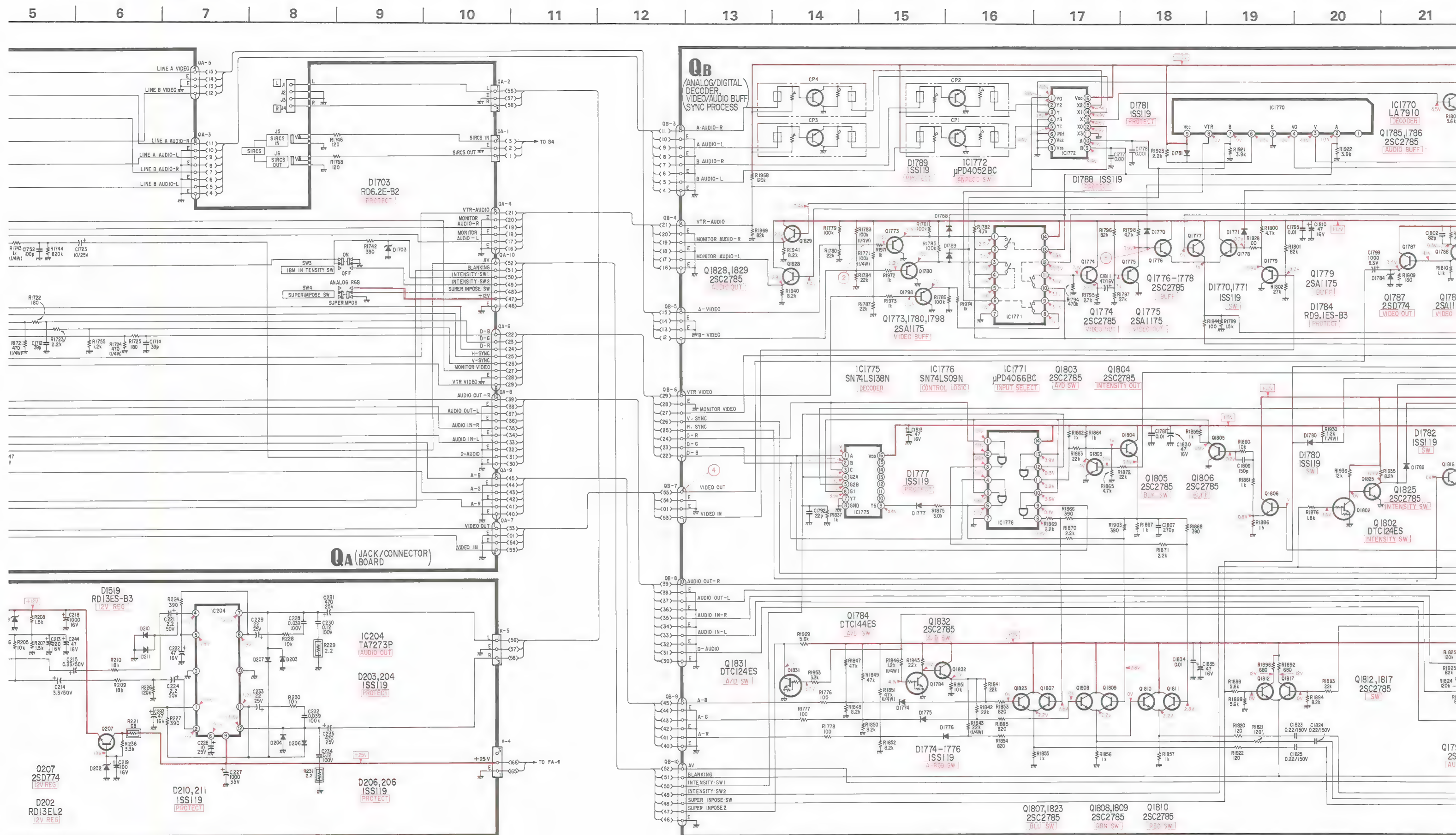




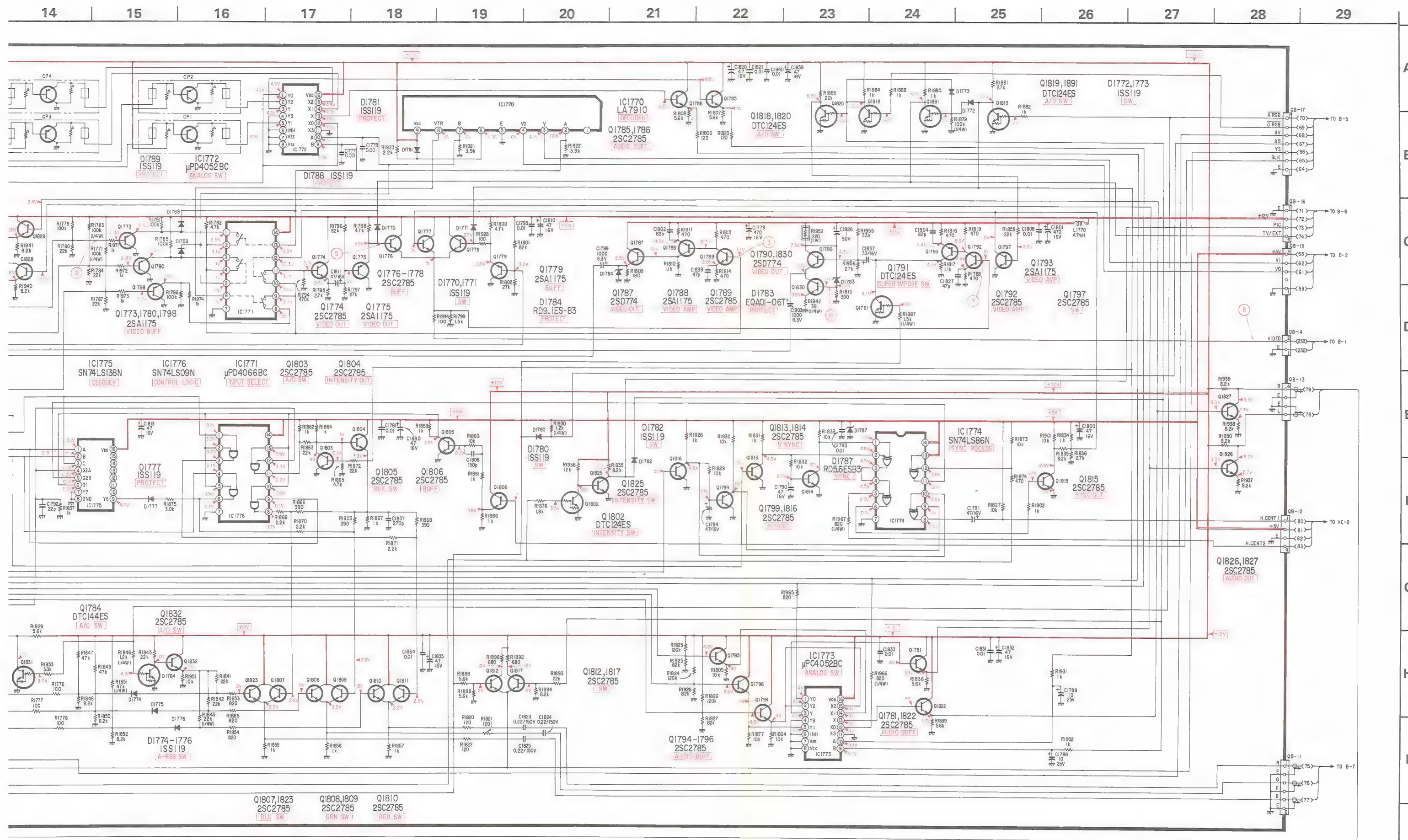














QA

ANALOG/DIGITAL DECODER,  
VIDEO/AUDIO BUFFER,  
SYNC PROCESS.

QB

QB

QA

[JACK/CONNECTOR]

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

## 【QB BOARD】

A

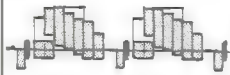
PAL

SECAM

NTSC  
3.58  
4.43

B

② Q1773 B



1Vp-p(H)

1Vp-p(H)

1Vp-p(H)

C

③ Q1789 B



1Vp-p(H)

1Vp-p(H)

1Vp-p(H)

D

④ QB-7 ④



2Vp-p(H)

2Vp-p(H)

2Vp-p(H)

E

⑤ Q1776 B



0.9Vp-p(H)

0.9Vp-p(H)

0.9Vp-p(H)

F

⑥ Q1830 C



2Vp-p(H)

2Vp-p(H)

2Vp-p(H)

G

⑦ Q1792 B



0.9Vp-p(H)

0.9Vp-p(H)

0.9Vp-p(H)

H

⑧ QB-14 ②



0.9Vp-p(H)

0.9Vp-p(H)

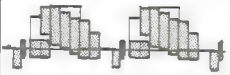
0.9Vp-p(H)

I

## 【QA BOARD】

J

① LINEA J7



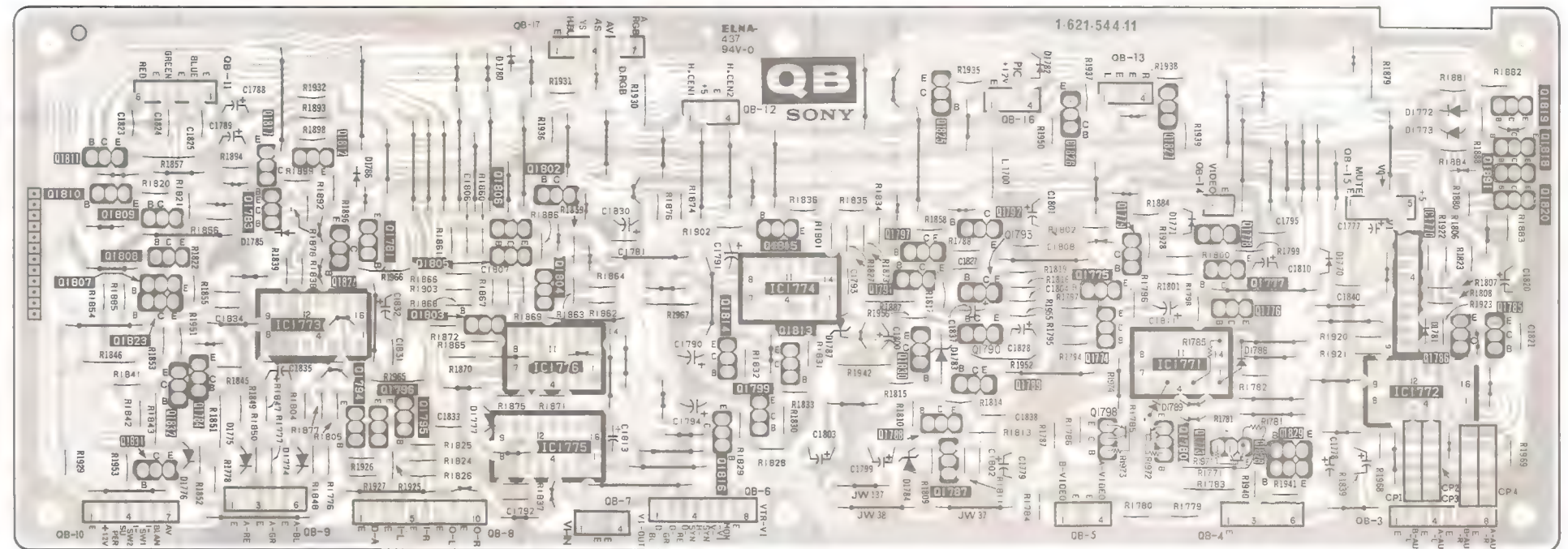
1Vp-p(H)

1Vp-p(H)

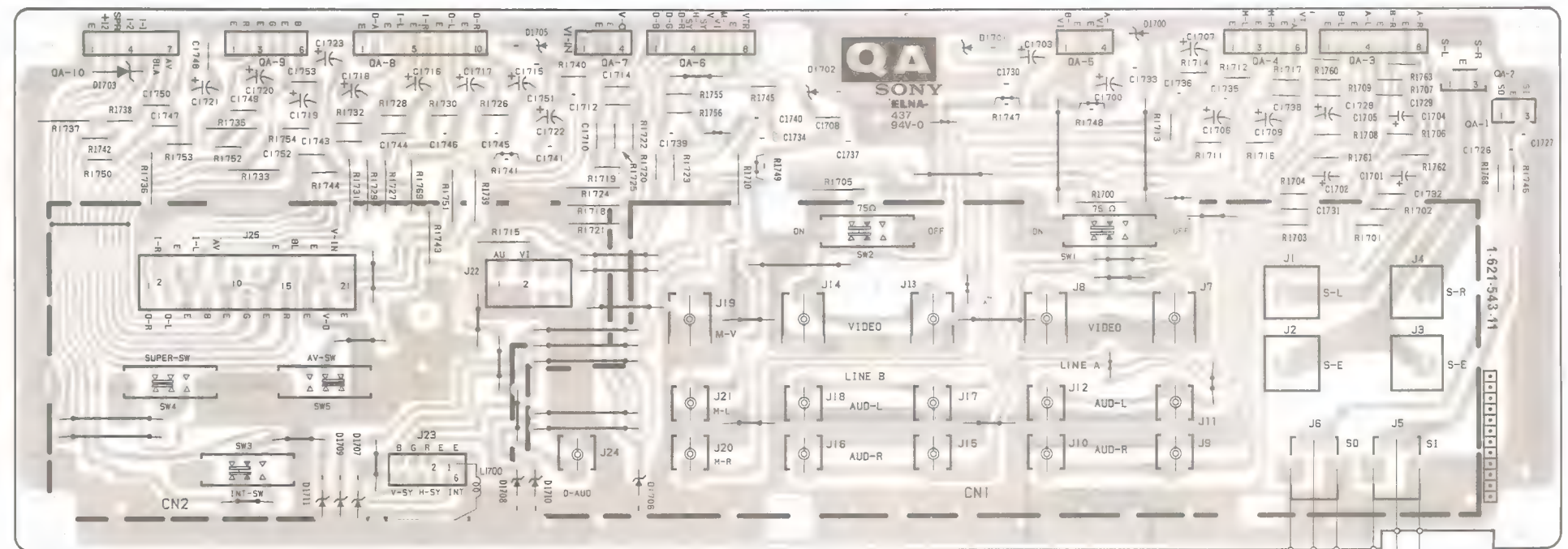
1Vp-p(H)

## QA Board

IC Q	1811 1810	1809 1808	1817 1812	1822 1781	1796 1795	1806 1805	1802 1804	1814 1799	1815 1813	1825 1797	1792 1793	1826 1775	1779 1774	1827 1778	1777 1776	1819 1818	IC Q
	1807 1831	1808 1832, 1784	1812 1773	1781 1794	1795 1795	1805 1803	1804 1776 1775	1814 1799	1815 1813	1825 1797	1792 1793	1826 1775	1779 1774	1827 1778	1777 1776	1819 1818	
	1807 1831	1808 1832, 1784	1812 1773	1781 1794	1795 1795	1805 1803	1804 1776 1775	1814 1799	1815 1813	1825 1797	1792 1793	1826 1775	1779 1774	1827 1778	1777 1776	1819 1818	
D	1703	1776	1775	1774 1711	1709 1707	1780 1777, 1708, 1710	1706	1787	1784 1783	1782	1771	1770	1772 1773	1770	1772 1773	D	

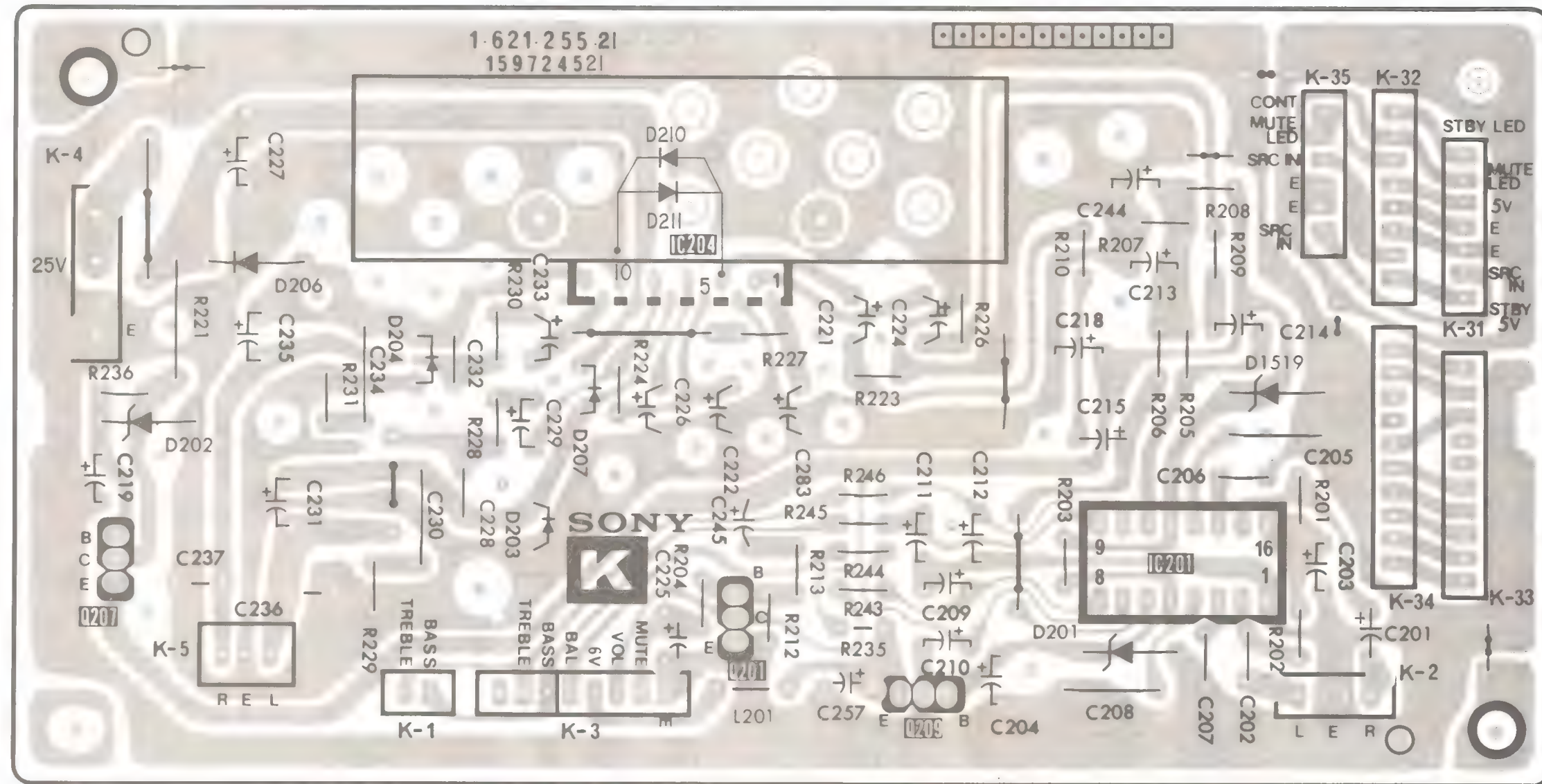


## QB Board

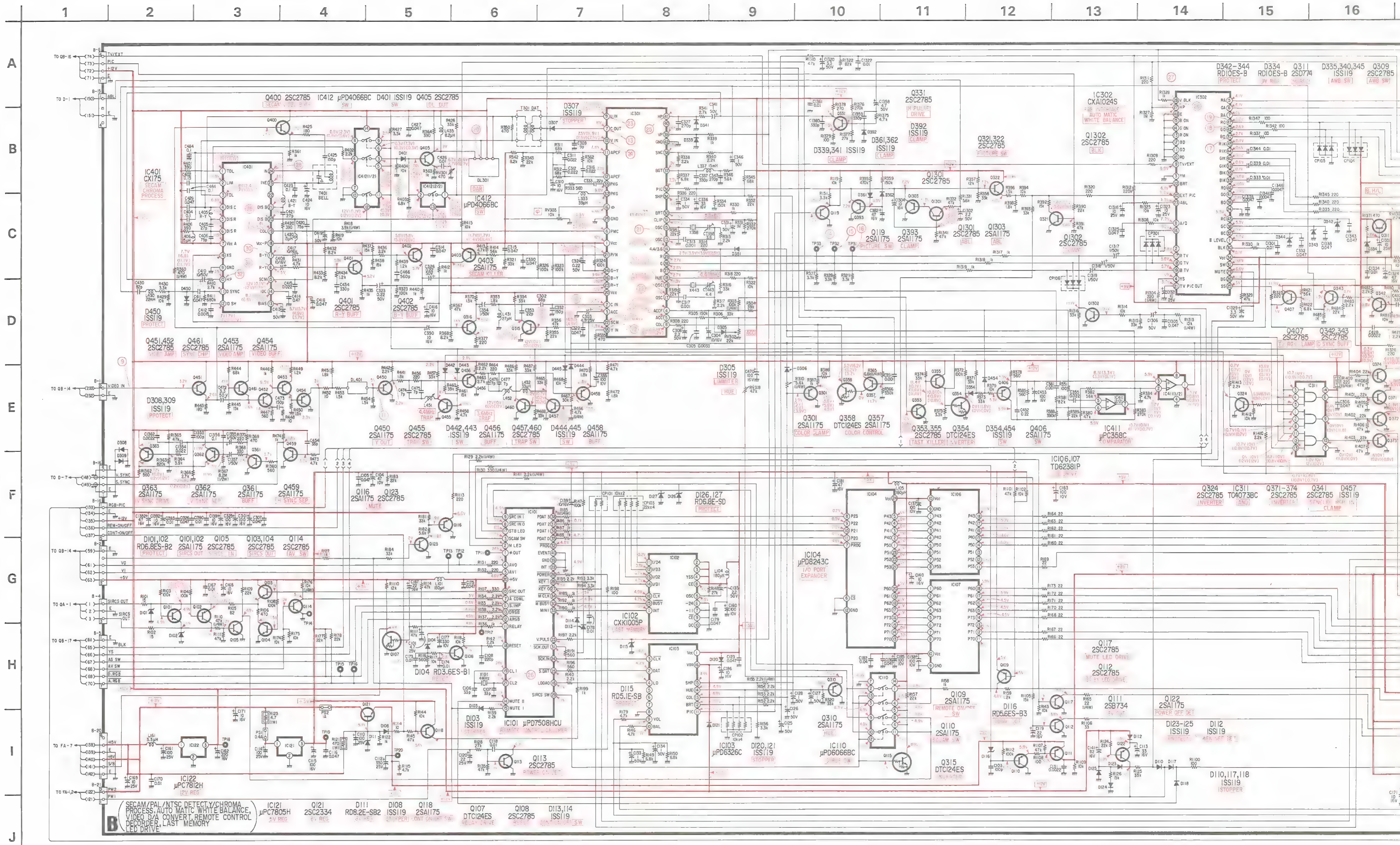




## K Board





















23



<p>(21) IC301 (13)</p>  <p>1.4Vp-p (3.58MHz)</p>	<p>(25) IC301 (41)</p>  <p>2.2Vp-p (H)</p>	<p>(29) IC401 (20)</p>  <p>SECAM 0.18Vp-p (H)</p>
<p>(22) IC301 (17)</p>  <p>1.9Vp-p (4.43MHz)</p>	<p>(26) IC302 (27)</p>  <p>6.2Vp-p (H)</p>	<p>(30) IC401 (17)</p>  <p>SECAM 2Vp-p (H)</p>
<p>(23) IC301 (9)</p>  <p>PAL 0.23Vp-p (H)</p>	<p>(27) IC302 (28)</p>  <p>3.6Vp-p (H)</p>	<p>(31) IC401 (8)</p>  <p>SECAM 2Vp-p (H)</p>
<p>(24) IC301 (10)</p>  <p>PAL 0.27Vp-p (H)</p>	<p>(28) IC401 (24)</p>  <p>SECAM 0.36Vp-p (H)</p>	<p>(32) IC401 (10)</p>  <p>1.5Vp-p (H)</p>



SECAM/PAL/NTSC DFTFCT, Y/CHROMA PROCESS  
AUTOMATIC WHITE BALANCE, VIDEO D/A CONVERT  
REMOTO CONTROL DECODER, LAST MEMORY,  
LED DRIVE.

B

B

## B Board

A



C

D

E

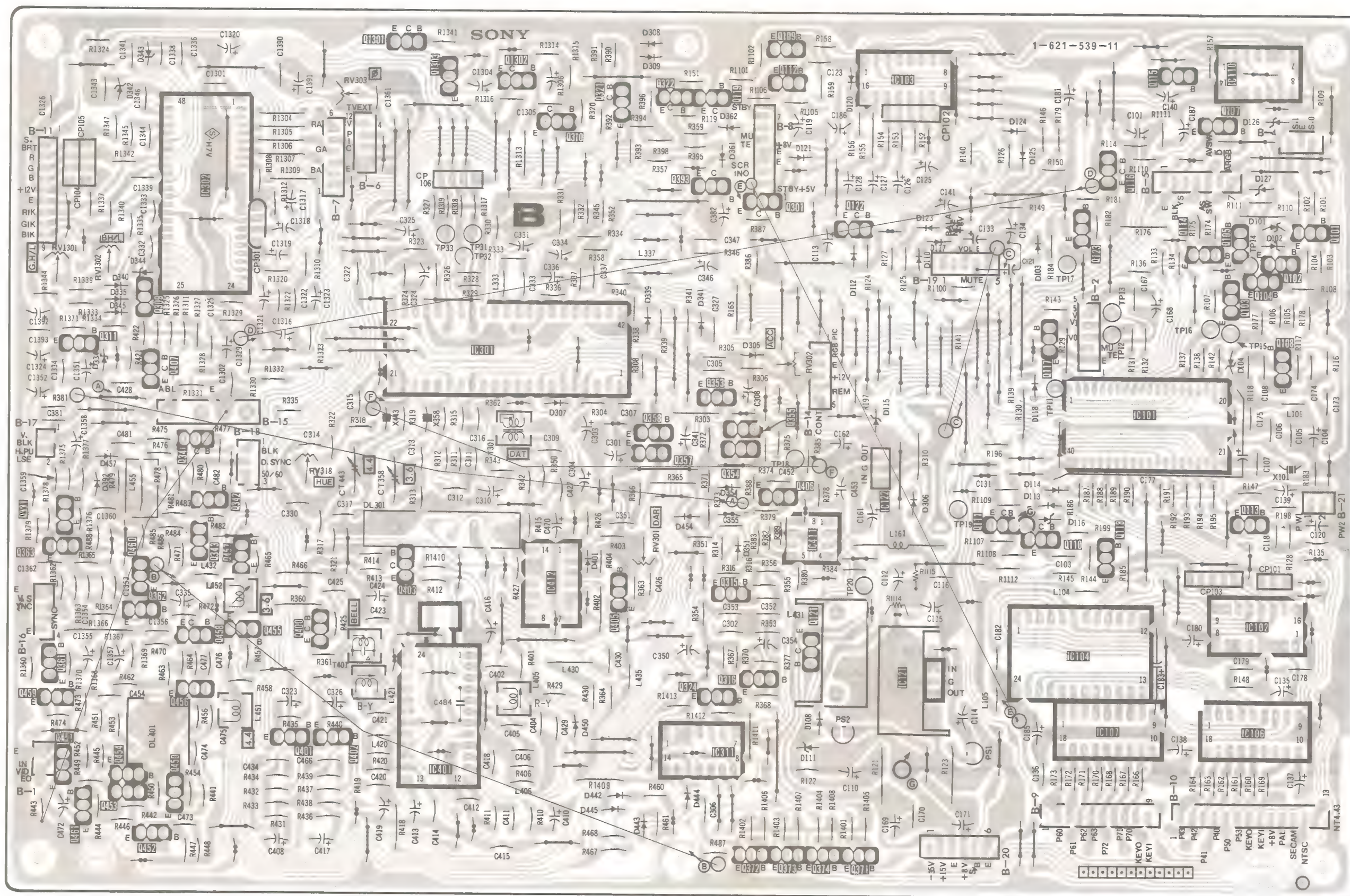
F

G

H

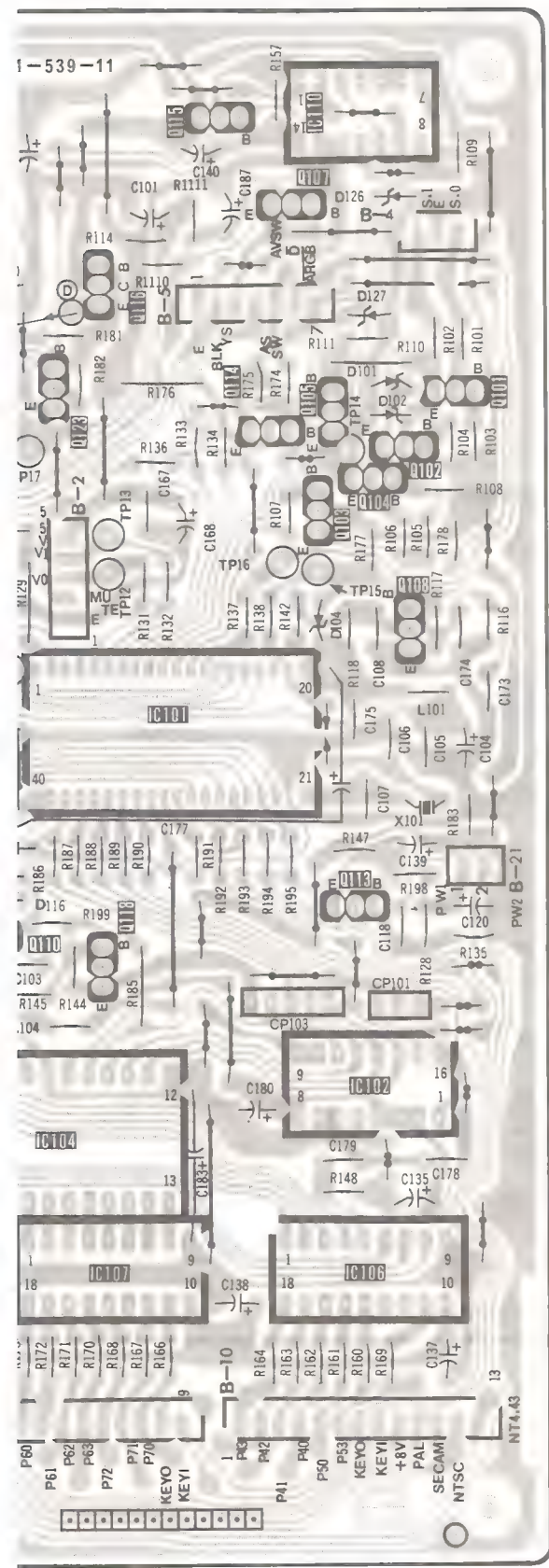
1

J



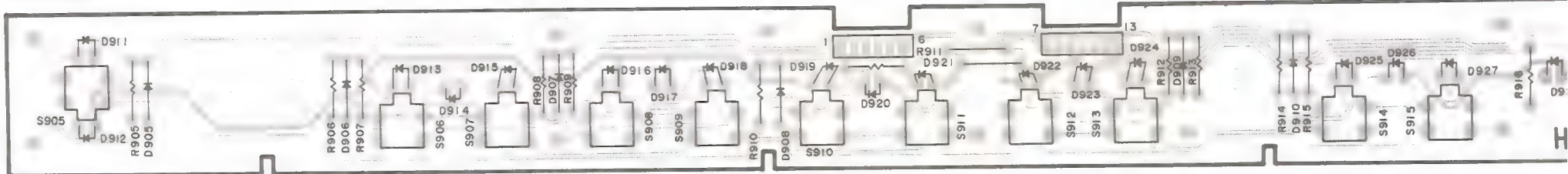
IC	Q	D	ADJ	TR
1301	109	308		
	IC110	343		
	115	309		
1303	IC103	120		
1302	112	342		
321, 322	119	362	126	
310	107	124		
	116	361	125	
		121		
393		127		
	301			
IC302		101		
122, 123	101	123		
	105	117, 102		
	114	103		
	102	112		
		110		
	104	344		
	103	340		
		335		
309		345		
	117	339		
		341		
IC301	108	305	104	
311		334	118	
407	353	307	115	
	IC101			
358, 355				
357, 354				
	IC122	457		
341	406	354		
		392	114	
	113	306		
342	111	454	113	
331	IC411	110	116	
343	118	351		
363, 457		401		
460	403			
	IC412			
	405, 315			
362	IC102			
	400			
	455	IC104		
458	121			
361	IC121			
	316			
	324			
459, 456				
	IC401			
	IC106	450	108	
401	IC107			
402	IC311	111		
451				
454				
453				
450		442, 444		
461		445, 443		
452				
372, 373				
374, 371				
IC	Q	D	ADJ	TR



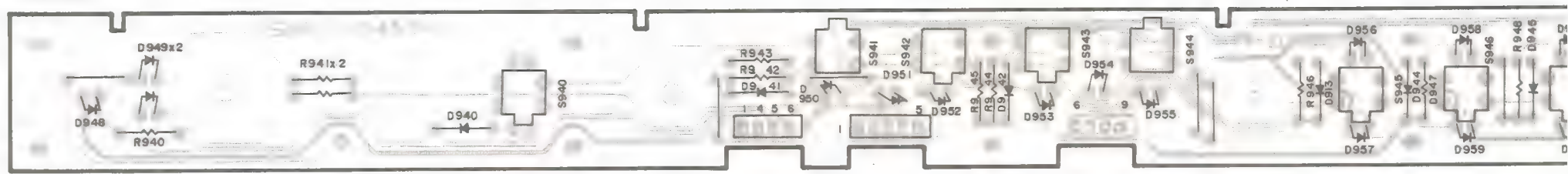


IC	Q	D	ADJ	TP
1301	109	308		
	IC110	343		
1303	115	309		
1302	IC103	120		
	112	342		
321, 322		362	RV303	
119	107	126		
310		124		
		361		
		125		
	116	121		
393		127		
301				
IC302		101		
122, 123	101	123	RV1301	31
105		117, 102	RV1302	17
114	102	103		14
		112		33
	104	110		32
	103	344		
		340		
		335		
		345		
309		339		13
	117	341		16
				15
IC301	108	305	RV302	12
		104		
311		334		11
407	353	118		
	IC101	307		
		115		
358, 355				
357, 354				
	IC122	457	CT443	18
		354	CT358	
341	406	392	RV318	19
		114		
	113	306		
		454, 113		
		116		
342	IC411	110		
331				
343	118	351		
363, 457		401	RV301	20
460	403			
IC412				
405, 315				
362	IC102			
400	IC104			
455				
458	121			
361	IC121			
316				
324				
459, 456				
IC401	IC106	450		
		108		
401	IC107			
402		111		
	IC311			
451				
454				
453				
450		442, 444		
461		445, 443		
452				
372, 373				
374, 371				
IC	Q	D	ADJ	TP

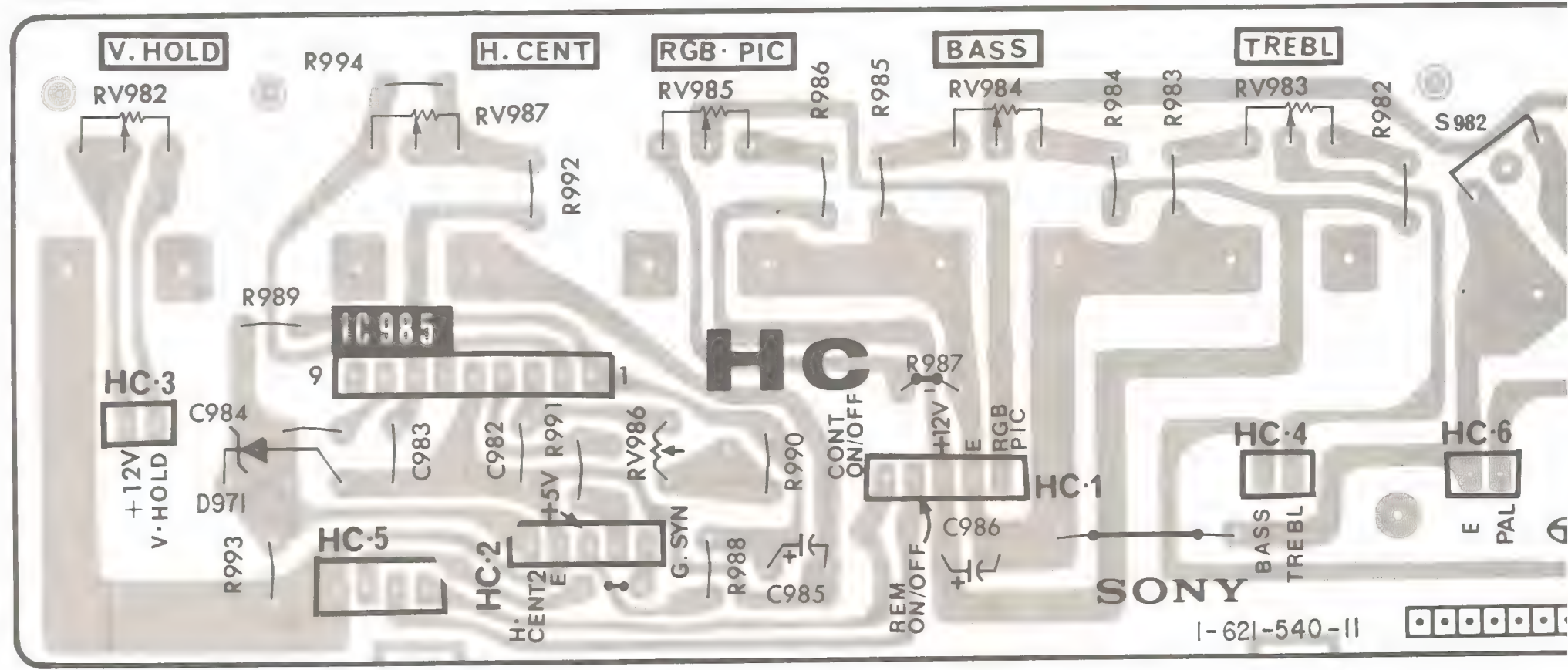
HA Board



HB Board



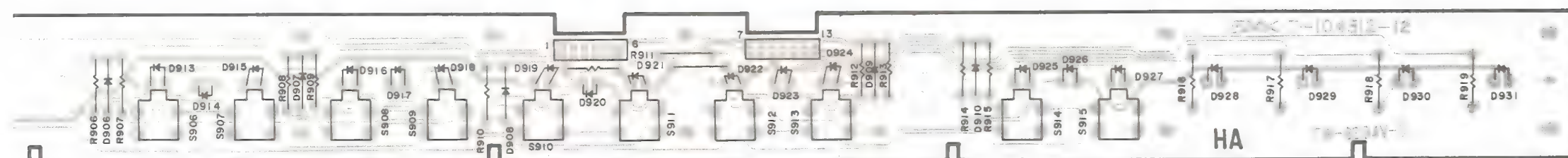
HC Board



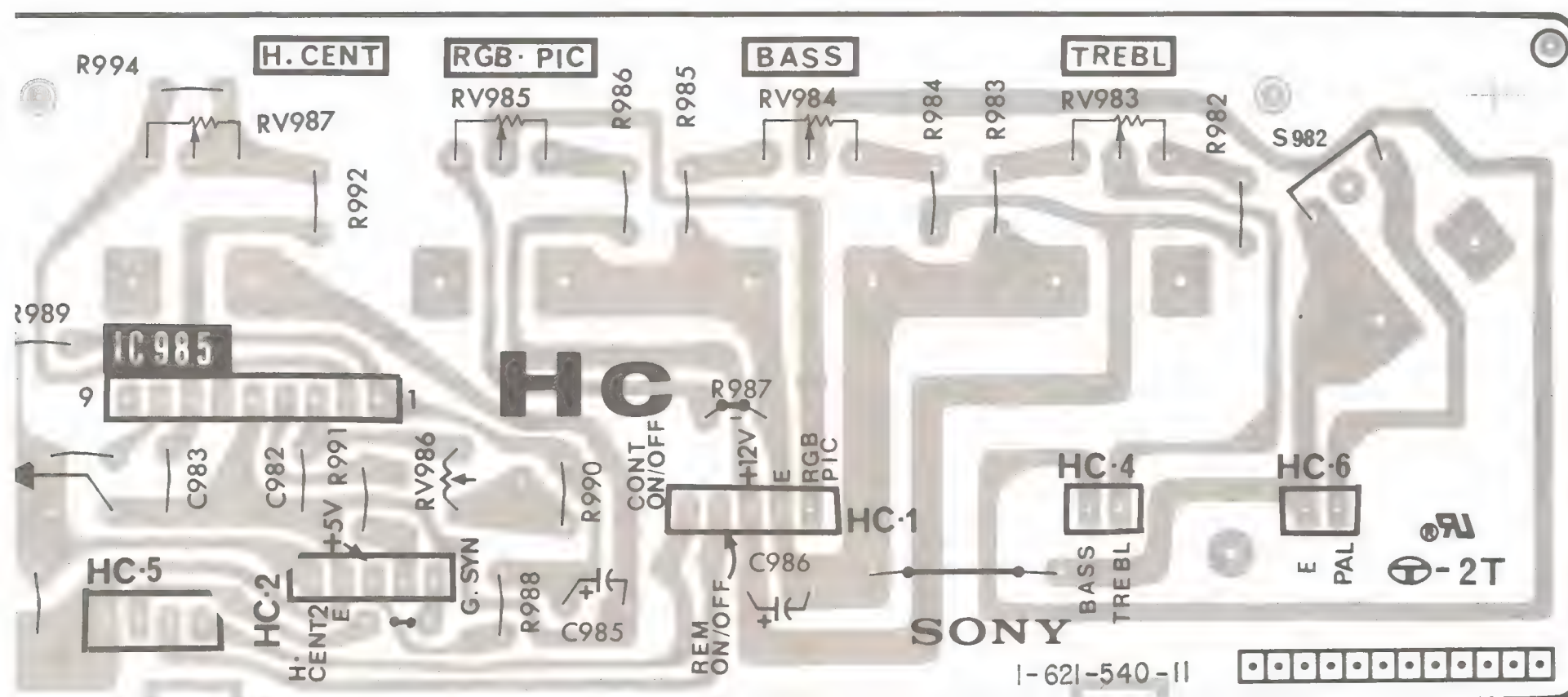
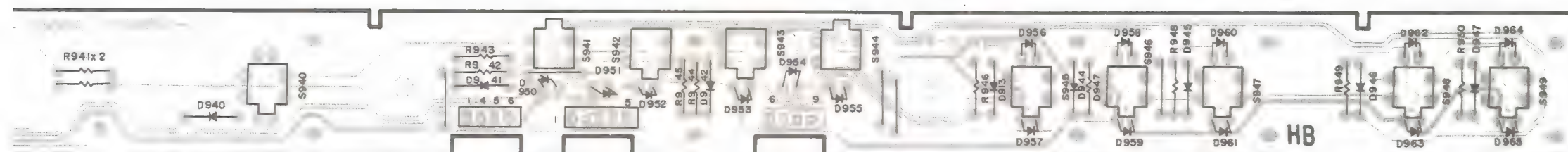
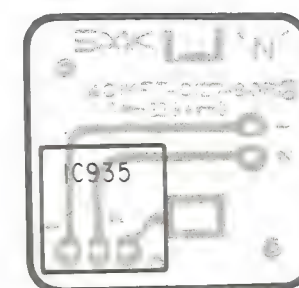


' BOARD INDICATOR.] **HB** [KEY BOARD INDICATOR.] **HA** **HA** **HB** **HC** **HD** [SWITCH.] **N** [INF AMP.]

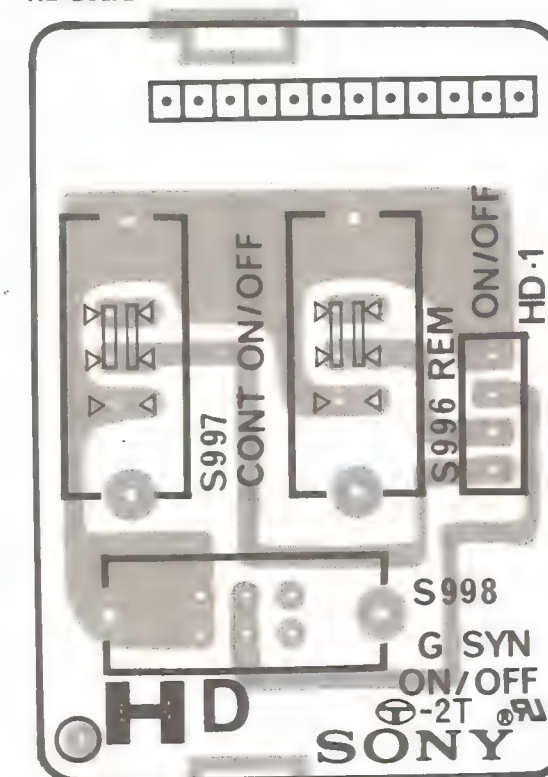
19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----



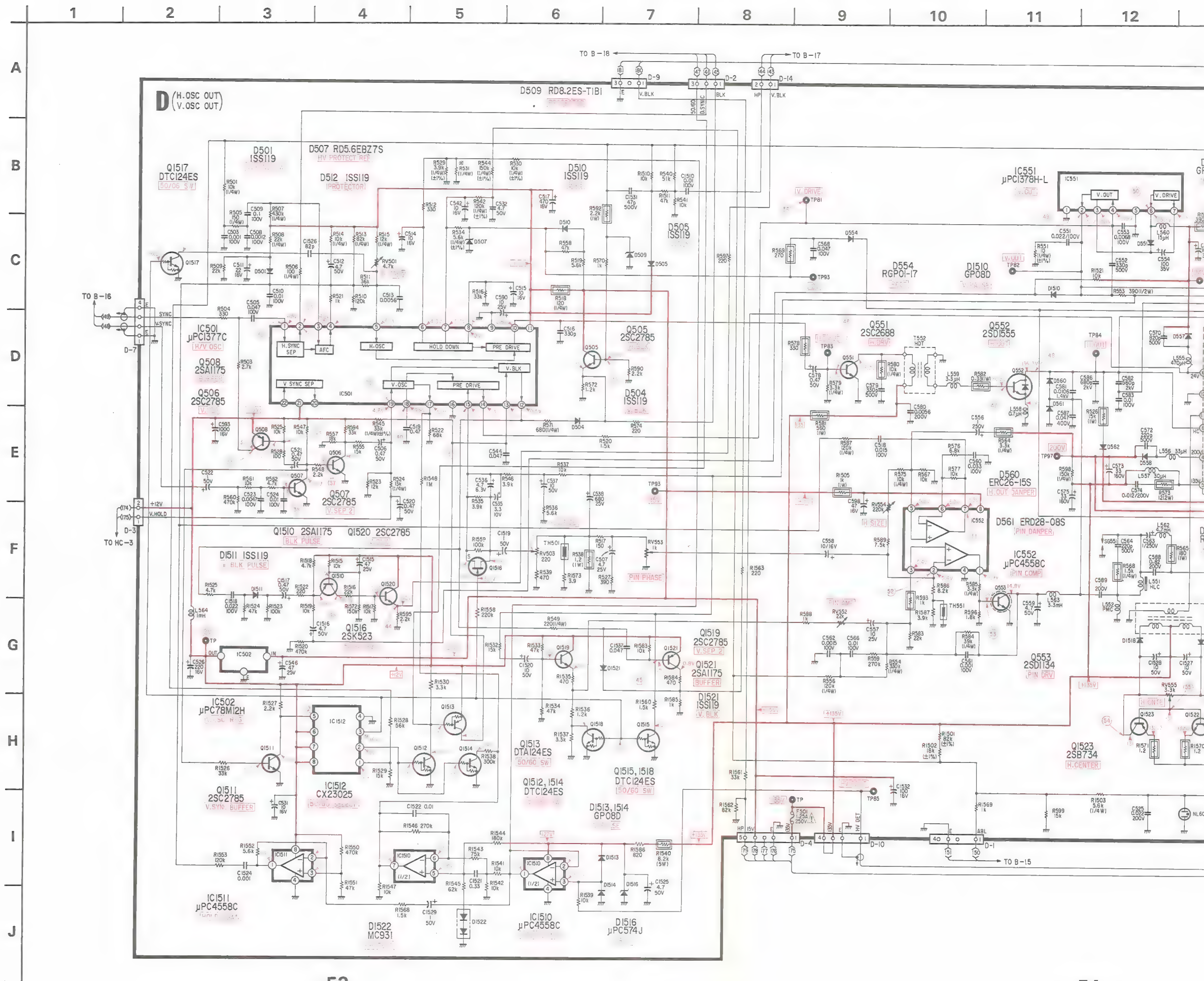
## N Board



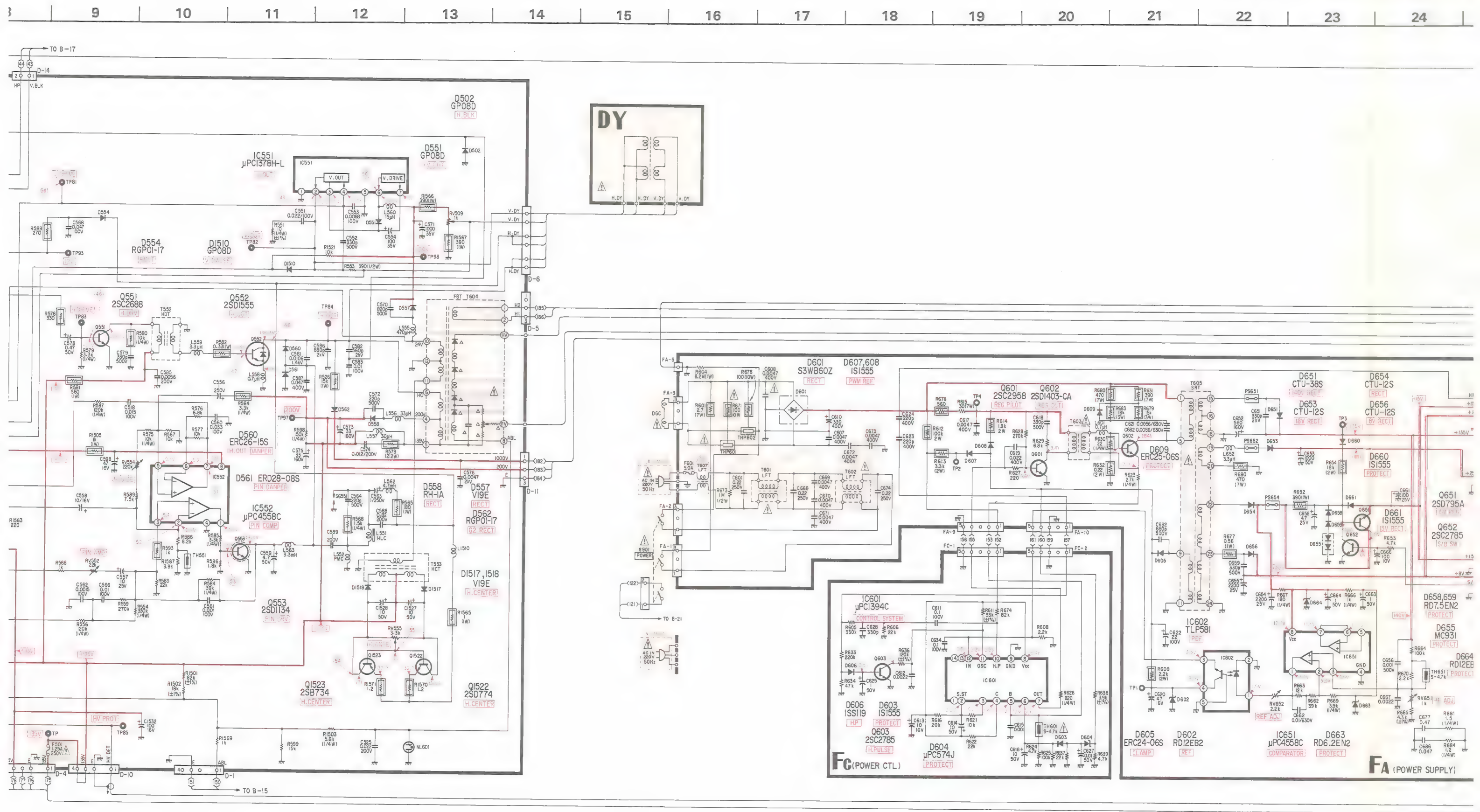
HD Board



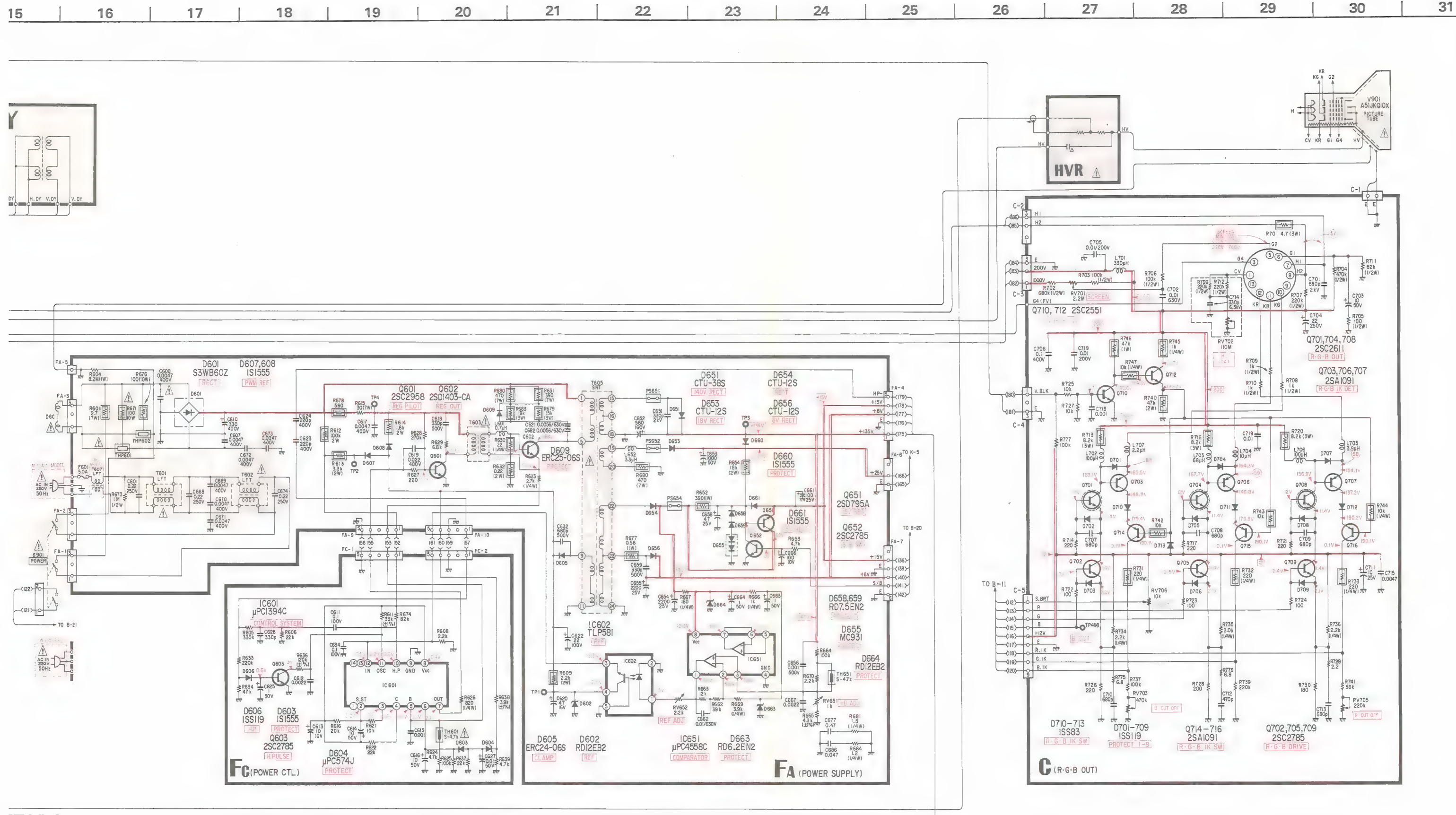














[SYNC SEP, H/V OSC, H/S OUT  
PIN CONP, PIN OUT, H/V CONP, BLK.]

D

D

This figure displays two pages from a technical manual, likely a service manual for a Sony electronic device, showing waveforms and a circuit board layout.

**Page 57 (Left):** This page contains a grid of 20 waveforms, labeled A through J and 1 through 10. Each waveform is accompanied by its amplitude and phase information, and the component it is measured at. The components are primarily integrated circuits (ICs) and transistors (Qs).

Label	Amplitude & Phase	Component
A1	1.8Vp-p(H)	IC501 ①
A2	1.5Vp-p(V)	IC501 ③
A3	14Vp-p(H)	Q552 B
A4	30Vp-p(H)	Q1523 C
B1	1.8Vp-p(H)	IC501 ②
B2	0.8Vp-p(V)	IC501 ⑤
B3	1140Vp-p(H)	Q552 C
B4	1Vp-p(H)	Q1522 B
C1	1.5Vp-p(H)	Q508 C
C2	4.2Vp-p(H)	Q505 B
C3	130Vp-p(V)	IC551 ②
C4	2.1Vp-p(V)	TP81
D1	2Vp-p(V)	Q508 B
D2	10Vp-p(V)	Q1510 C
D3	2.4Vp-p(V)	IC551 ⑥
E1	0.5Vp-p(V)	Q506 B
E2	13Vp-p(V)	Q1520 E
E3	1Vp-p(H)	IC552 ⑦
F1	2.2Vp-p(V)	Q507 B
F2	5.8Vp-p(V)	Q1521 E
F3	1Vp-p(V)	IC552 ②
G1	2Vp-p(V)	IC501 ③
G2	17Vp-p(H)	Q551 B
G3	30Vp-p(H)	Q553 E

**Page 58 (Right):** This page shows a detailed circuit board layout for the "D Board". The board is populated with various electronic components, including integrated circuits (ICs), transistors (Qs), resistors (Rs), capacitors (Cs), and inductors (Ls). Key components labeled include:

- ICs: IC501, IC502, IC503, IC504, IC505, IC506, IC507, IC508, IC509, IC510, IC511, IC512, IC513, IC514, IC515, IC516, IC517, IC518, IC519, IC520, IC521, IC522, IC523, IC524, IC525, IC526, IC527, IC528, IC529, IC530, IC531, IC532, IC533, IC534, IC535, IC536, IC537, IC538, IC539, IC540, IC541, IC542, IC543, IC544, IC545, IC546, IC547, IC548, IC549, IC550, IC551, IC552, IC553, IC554, IC555, IC556, IC557, IC558, IC559, IC560, IC561, IC562, IC563, IC564, IC565, IC566, IC567, IC568, IC569, IC570, IC571, IC572, IC573, IC574, IC575, IC576, IC577, IC578, IC579, IC580, IC581, IC582, IC583, IC584, IC585, IC586, IC587, IC588, IC589, IC590, IC591, IC592, IC593, IC594, IC595, IC596, IC597, IC598, IC599, IC600, IC601, IC602, IC603, IC604, IC605, IC606, IC607, IC608, IC609, IC610, IC611, IC612, IC613, IC614, IC615, IC616, IC617, IC618, IC619, IC620, IC621, IC622, IC623, IC624, IC625, IC626, IC627, IC628, IC629, IC630, IC631, IC632, IC633, IC634, IC635, IC636, IC637, IC638, IC639, IC640, IC641, IC642, IC643, IC644, IC645, IC646, IC647, IC648, IC649, IC650, IC651, IC652, IC653, IC654, IC655, IC656, IC657, IC658, IC659, IC660, IC661, IC662, IC663, IC664, IC665, IC666, IC667, IC668, IC669, IC670, IC671, IC672, IC673, IC674, IC675, IC676, IC677, IC678, IC679, IC680, IC681, IC682, IC683, IC684, IC685, IC686, IC687, IC688, IC689, IC690, IC691, IC692, IC693, IC694, IC695, IC696, IC697, IC698, IC699, IC700, IC701, IC702, IC703, IC704, IC705, IC706, IC707, IC708, IC709, IC710, IC711, IC712, IC713, IC714, IC715, IC716, IC717, IC718, IC719, IC720, IC721, IC722, IC723, IC724, IC725, IC726, IC727, IC728, IC729, IC730, IC731, IC732, IC733, IC734, IC735, IC736, IC737, IC738, IC739, IC740, IC741, IC742, IC743, IC744, IC745, IC746, IC747, IC748, IC749, IC750, IC751, IC752, IC753, IC754, IC755, IC756, IC757, IC758, IC759, IC760, IC761, IC762, IC763, IC764, IC765, IC766, IC767, IC768, IC769, IC770, IC771, IC772, IC773, IC774, IC775, IC776, IC777, IC778, IC779, IC780, IC781, IC782, IC783, IC784, IC785, IC786, IC787, IC788, IC789, IC790, IC791, IC792, IC793, IC794, IC795, IC796, IC797, IC798, IC799, IC800, IC801, IC802, IC803, IC804, IC805, IC806, IC807, IC808, IC809, IC810, IC811, IC812, IC813, IC814, IC815, IC816, IC817, IC818, IC819, IC820, IC821, IC822, IC823, IC824, IC825, IC826, IC827, IC828, IC829, IC830, IC831, IC832, IC833, IC834, IC835, IC836, IC837, IC838, IC839, IC840, IC841, IC842, IC843, IC844, IC845, IC846, IC847, IC848, IC849, IC850, IC851, IC852, IC853, IC854, IC855, IC856, IC857, IC858, IC859, IC860, IC861, IC862, IC863, IC864, IC865, IC866, IC867, IC868, IC869, IC870, IC871, IC872, IC873, IC874, IC875, IC876, IC877, IC878, IC879, IC880, IC881, IC882, IC883, IC884, IC885, IC886, IC887, IC888, IC889, IC890, IC891, IC892, IC893, IC894, IC895, IC896, IC897, IC898, IC899, IC900, IC901, IC902, IC903, IC904, IC905, IC906, IC907, IC908, IC909, IC910, IC911, IC912, IC913, IC914, IC915, IC916, IC917, IC918, IC919, IC920, IC921, IC922, IC923, IC924, IC925, IC926, IC927, IC928, IC929, IC930, IC931, IC932, IC933, IC934, IC935, IC936, IC937, IC938, IC939, IC940, IC941, IC942, IC943, IC944, IC945, IC946, IC947, IC948, IC949, IC950, IC951, IC952, IC953, IC954, IC955, IC956, IC957, IC958, IC959, IC960, IC961, IC962, IC963, IC964, IC965, IC966, IC967, IC968, IC969, IC970, IC971, IC972, IC973, IC974, IC975, IC976, IC977, IC978, IC979, IC980, IC981, IC982, IC983, IC984, IC985, IC986, IC987, IC988, IC989, IC990, IC991, IC992, IC993, IC994, IC995, IC996, IC997, IC998, IC999, IC1000, IC1001, IC1002, IC1003, IC1004, IC1005, IC1006, IC1007, IC1008, IC1009, IC1010, IC1011, IC1012, IC1013, IC1014, IC1015, IC1016, IC1017, IC1018, IC1019, IC1020, IC1021, IC1022, IC1023, IC1024, IC1025, IC1026, IC1027, IC1028, IC1029, IC1030, IC1031, IC1032, IC1033, IC1034, IC1035, IC1036, IC1037, IC1038, IC1039, IC1040, IC1041, IC1042, IC1043, IC1044, IC1045, IC1046, IC1047, IC1048, IC1049, IC1050, IC1051, IC1052, IC1053, IC1054, IC1055, IC1056, IC1057, IC1058, IC1059, IC1060, IC1061, IC1062, IC1063, IC1064, IC1065, IC1066, IC1067, IC1068, IC1069, IC1070, IC1071, IC1072, IC1073, IC1074, IC1075, IC1076, IC1077, IC1078, IC1079, IC1080, IC1081, IC1082, IC1083, IC1084, IC1085, IC1086, IC1087, IC1088, IC1089, IC1090, IC1091, IC1092, IC1093, IC1094



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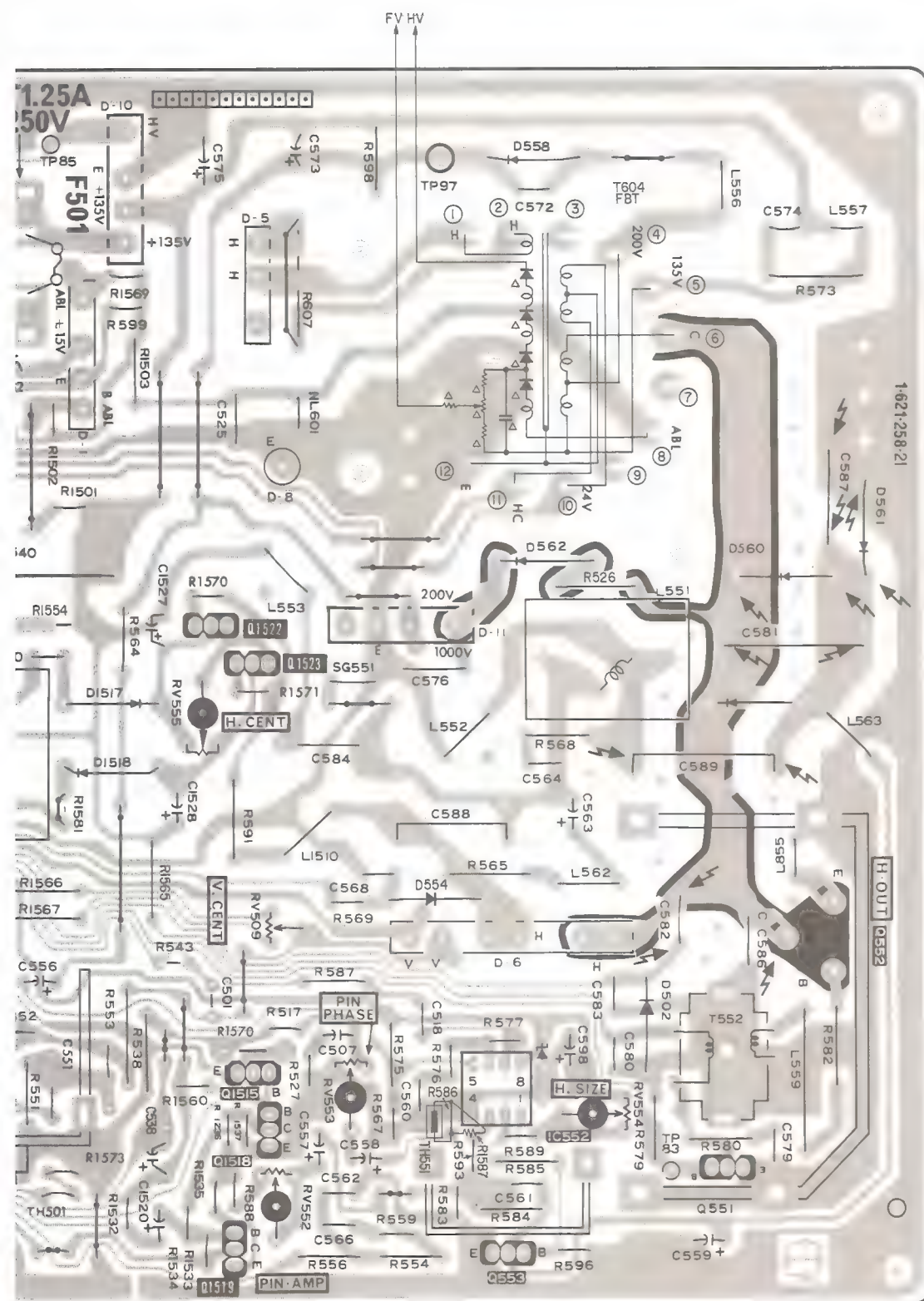
23

24

25

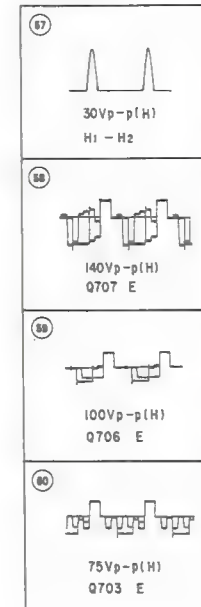
26

27

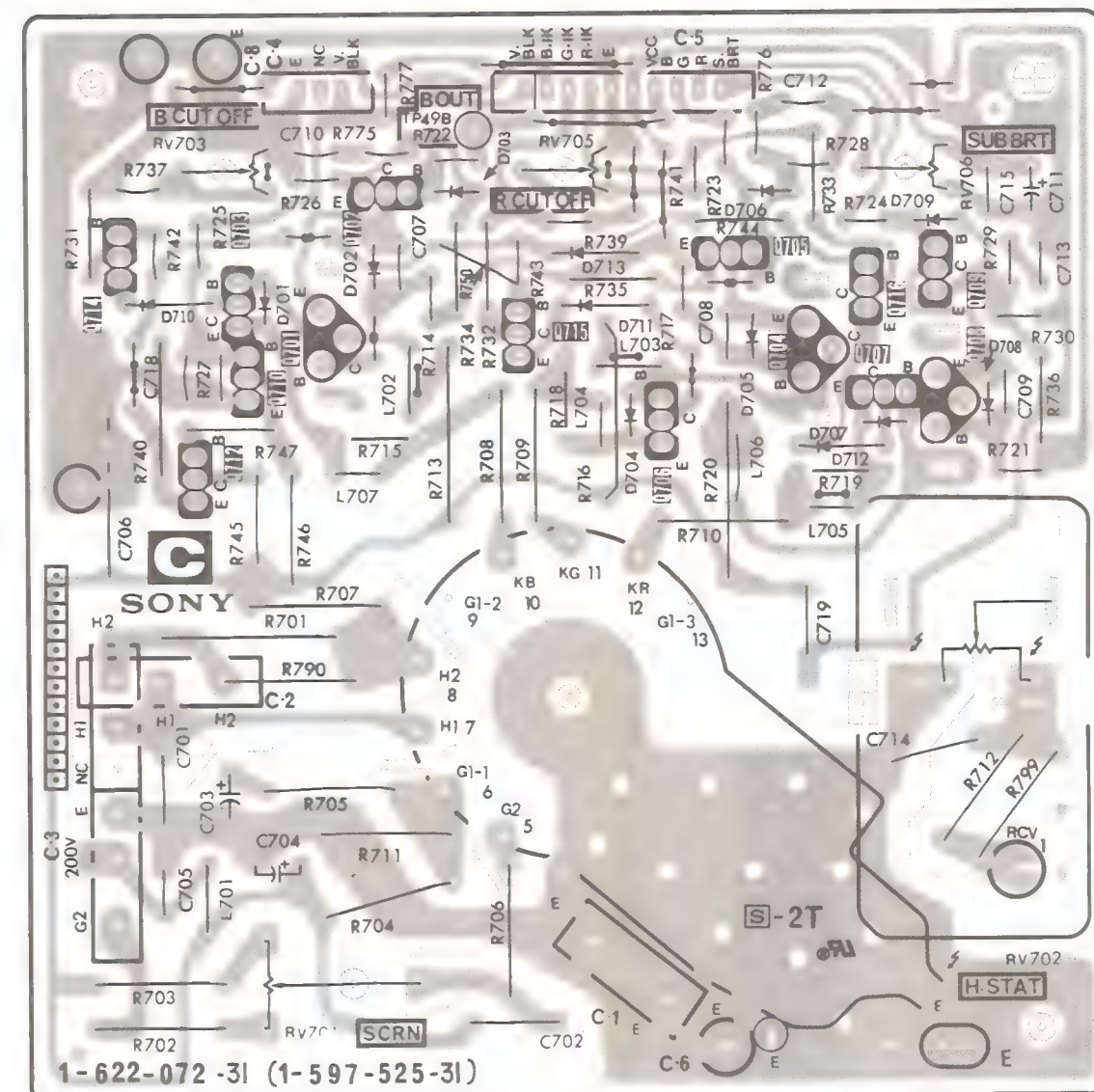


IC, Q	D	ADJ	TP
IC1510 IC1511	1522 1514	558	97
	1513		85
IC1511 IC1512	1516		
1514 1512 1513	557 561 562 560		98
1522 505 1523	507 510 509	RV555 RV503	93
IC502	501 505 1518		
1516	504	RV501	
1517	554	RV509	
552 IC501	502		81
1511 1510 1521	551	RV553 RV554	82
IC552 1515 1518	551		83
508 1521 IC551 1510 506 507	1519 1520 553	RV552	
IC, Q	D	ADJ	TP

[C BOARD]



CBoard



FABoard



FCBoard





[RGB OUT.]

C

C

FA

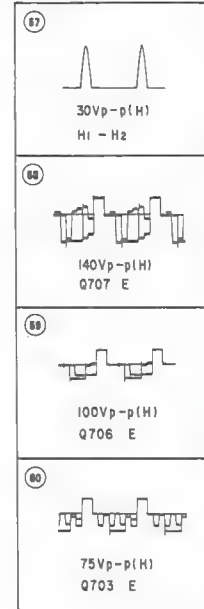
[POWER SUPPLY.]

FC

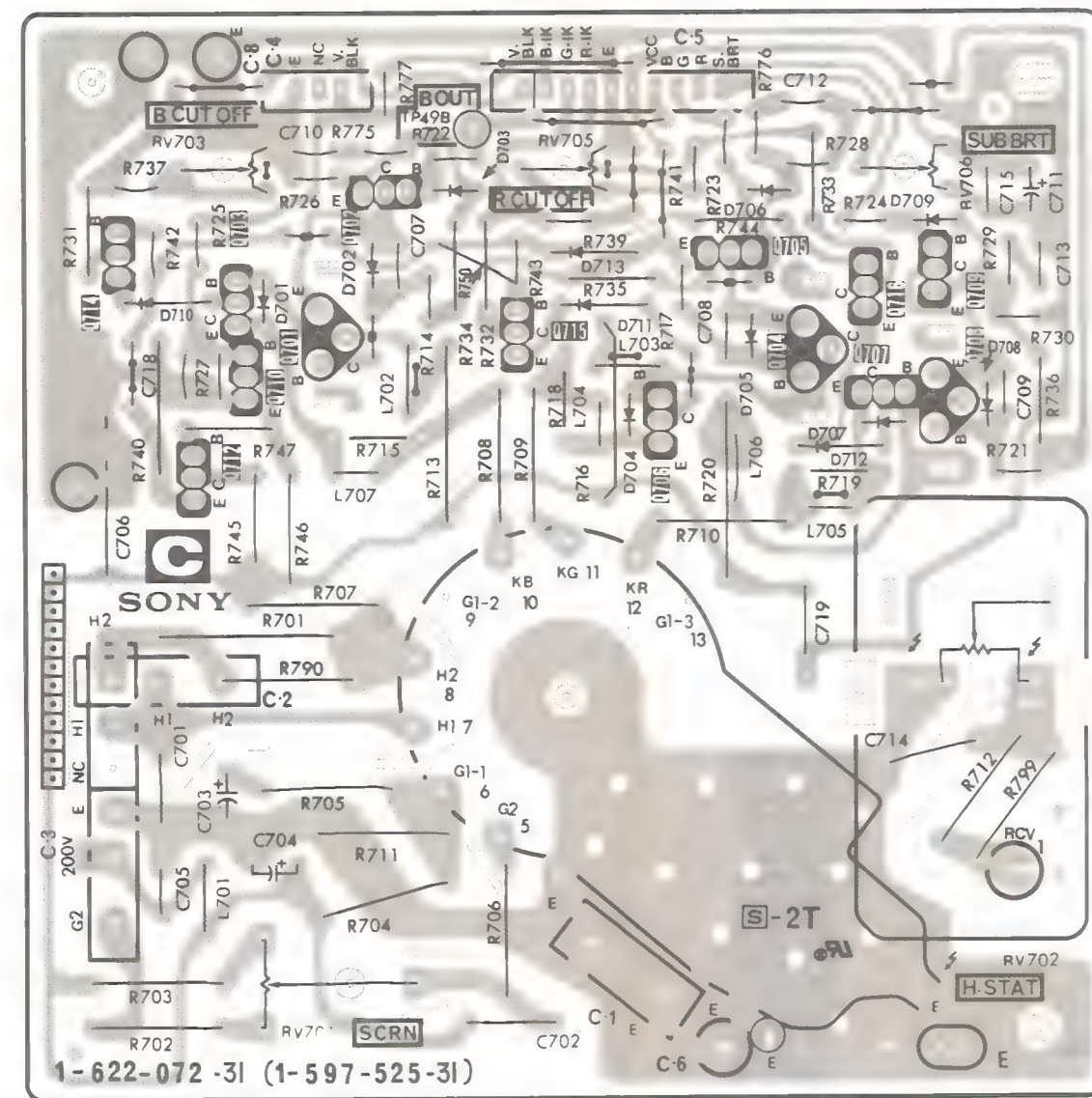
[POWER CTL.]

19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34

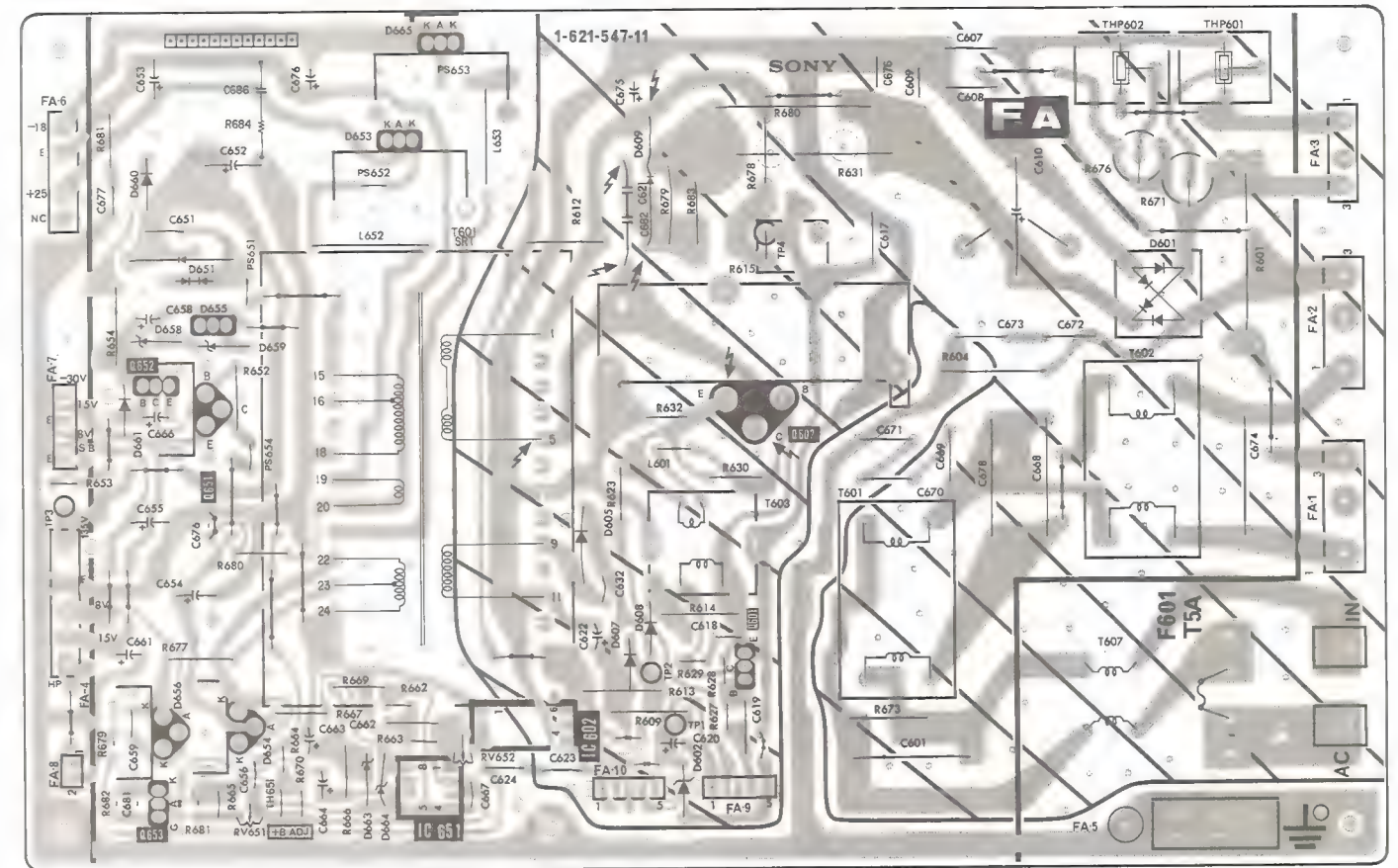
[C BOARD]



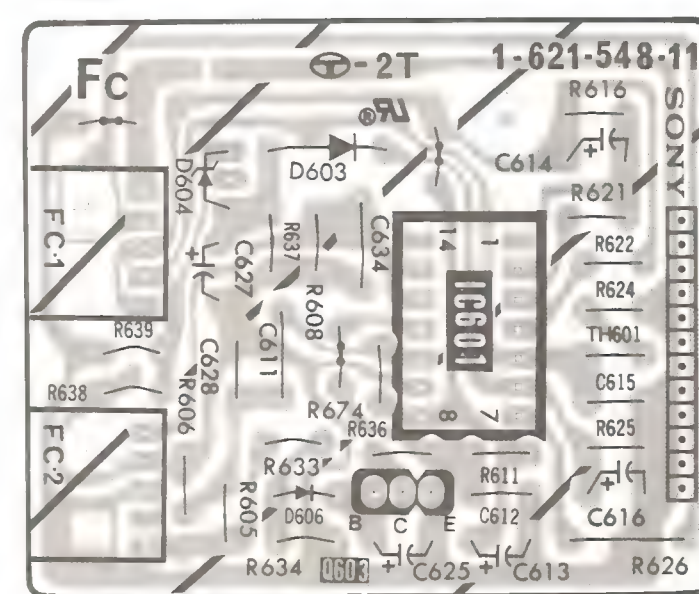
CBoard



FABoard



FCBoard



A  
B  
C  
D  
E  
F  
G  
H  
I  
J

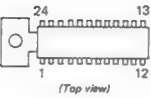


5-5. SEMICONDUCTORS

BA236  
LA7910



CX-175



CX23025  
HA17558  
NJM4558D  
 $\mu$ PC358C  
 $\mu$ PC4558C



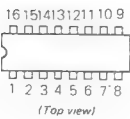
CXA1001AP



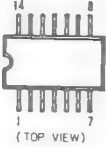
CXA1024S



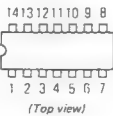
CXK1005P  
SN74LS138N  
TA7630P  
 $\mu$ PD4052BC  
 $\mu$ PD6326C



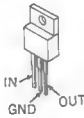
MC14073BCP



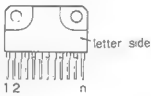
SN74LS09N  
SN74LS86N  
TC4073BP  
 $\mu$ PD1394C  
 $\mu$ PD4066BC  
 $\mu$ PD4073BC



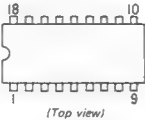
NJM7805H  
NJM7812A  
NJM78M12H  
 $\mu$ PC7805H  
 $\mu$ PC7812H  
 $\mu$ PC78M121-1



TA7273P



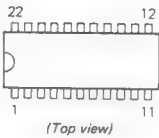
TD62381



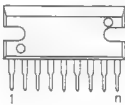
$\mu$ PC574J



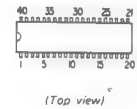
$\mu$ PC1377C



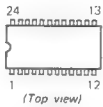
$\mu$ PC1378H



$\mu$ PD750HCU-244



$\mu$ PD8243C



2SA933  
2SA1091  
2SB734  
2SC2551



2SA1048  
2SA1115  
2SC1740  
2SC2458  
2SC2603  
DTA124ES  
DTC124ES  
DTC144ES



2SA1175  
2SC2785



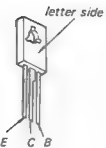
2SB734  
2SC2958  
2SC2959  
2SD773  
2SD774



2SC2334  
2SD1134



2SC2611  
2SC2688



2SD795



2SD1403



2SD1555



2SK523



IN4148  
ISS83  
IS1555  
10E2  
EQA01-06  
ERC24-06S  
ERD28-08  
ES1F  
GP-08D  
RD5.6E-B2  
RD5.6EBZ7S  
RD6.2E-B1  
RD6.2E-B2  
RD6.2E-L2  
RD12E-B2  
RD13E-L2  
RD27E-B2  
RGP01-17  
RGP01-17PKG23  
RGP10G-PKG23



ISS119  
ISS133  
ISS148  
HZS3.6NB1  
HZS5.1NB  
HZS5.1NB2  
HZS6.8NB2  
HZS10NB2  
HZS13NB3  
MTZJ5.1B  
MTZJ13C  
RD3.6ES-B1  
RD5.1ES-B  
RD5.1ES-B2  
RD5.1ES-B3  
RD5.6ES-B3  
RD6.2ES-B1  
RD6.2ES-B2  
RD6.8ES-B  
RD7.5ES-B2  
RD8.2ES-B1  
RD8.2ES-B2  
RD9.1ES-B3  
RD10ES-B2  
RD13ES-B3




## SECTION 6 EXPLODED VIEWS

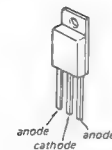
### NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

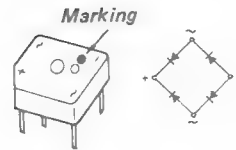
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark  are critical for safety. Replace only with part number specified.

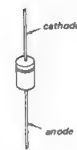
CTU-12S



S3WB60Z



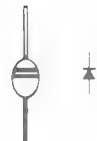
EQB9.1ES-06  
ERC25-06  
RH-1A



V19E  
V19G



ERC26-15S  
GH3F  
U05G  
V30N



TLP581



ERD29-08

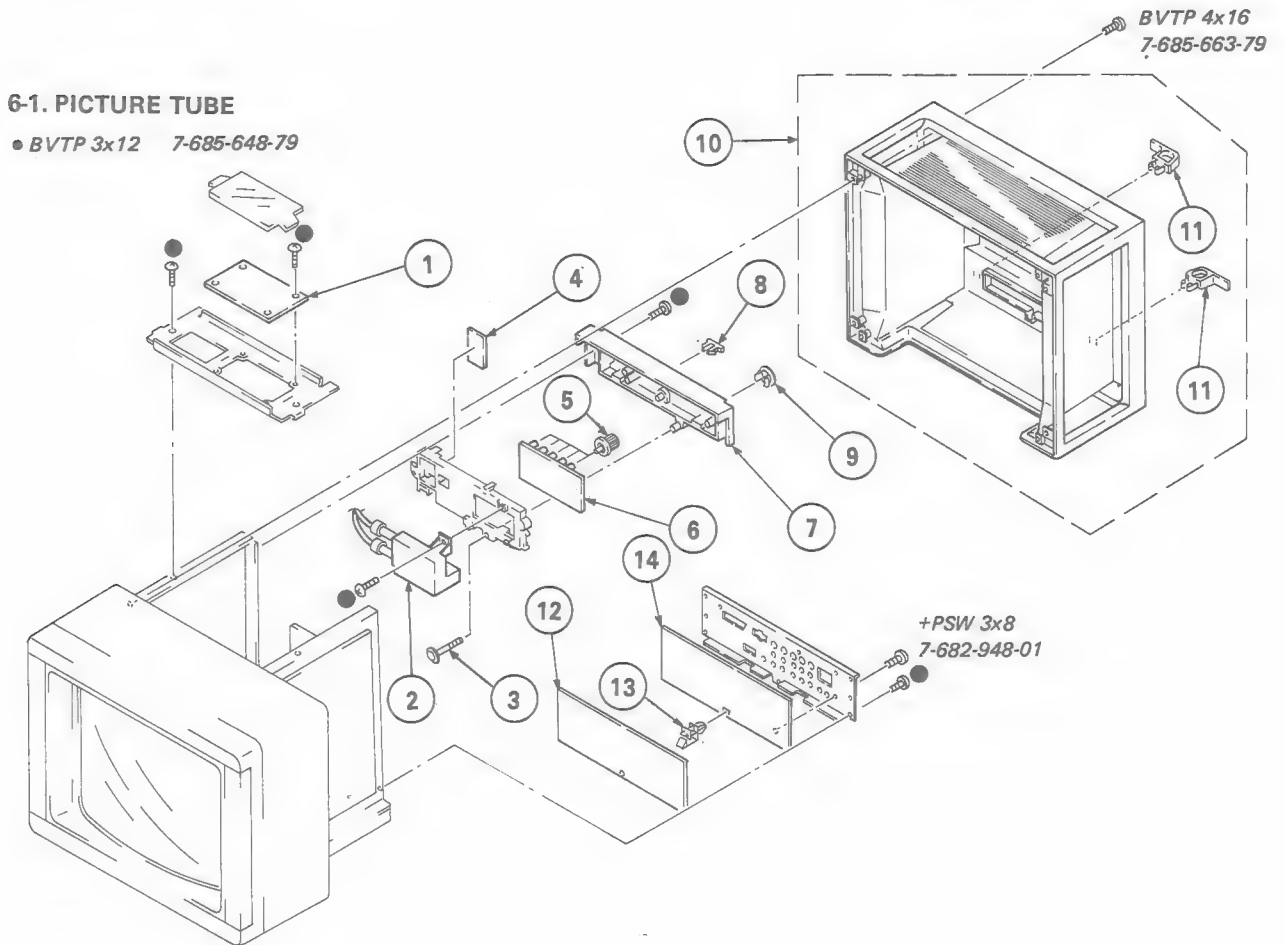



MC931



### 6-1. PICTURE TUBE

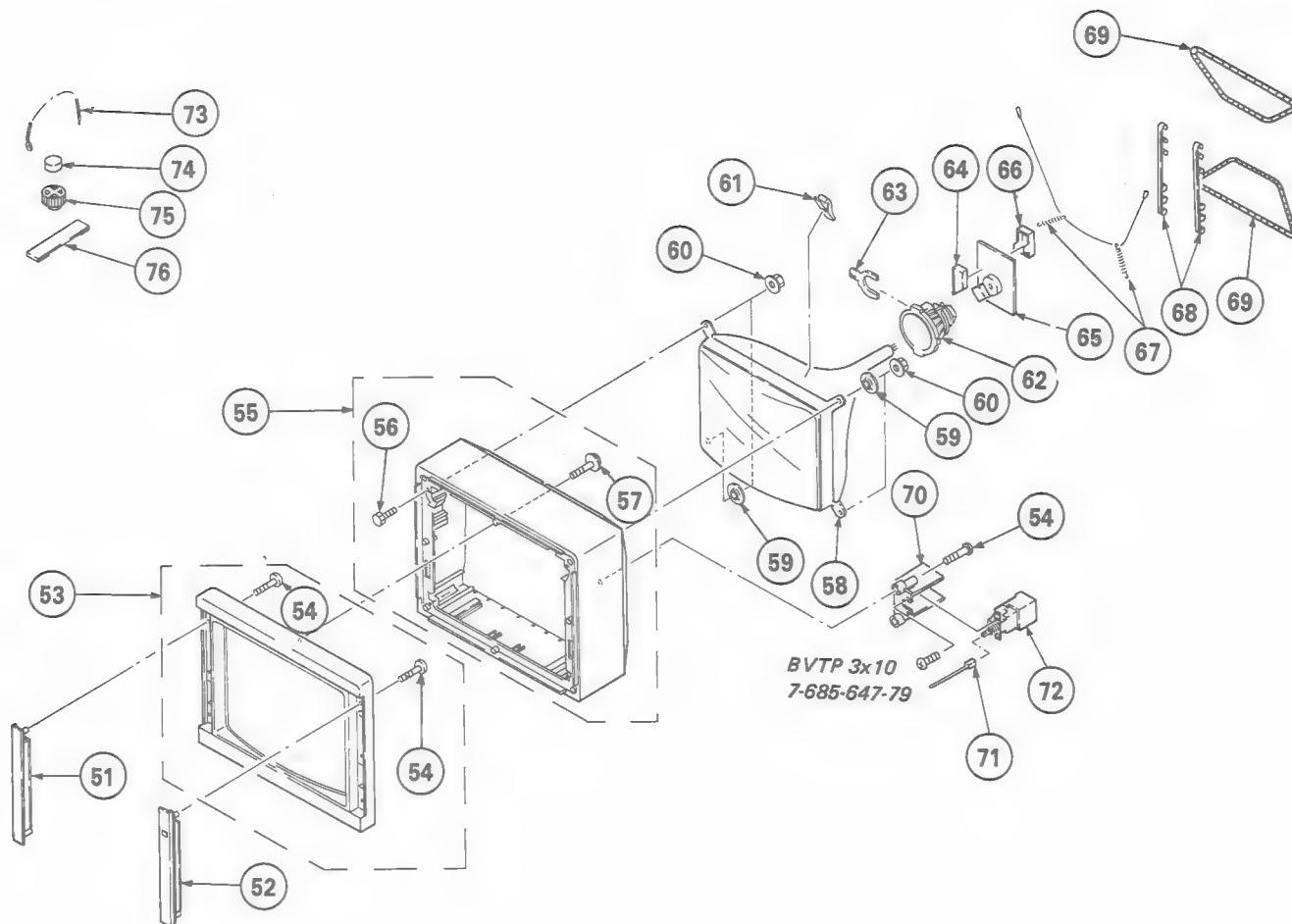
• BVTP 3x12 7-685-648-79



No.	Part No.	Description	Remark	No.	Part No.	Description	Remark
1	*A-1389-865-A	K BOARD, COMPLETE		8	4-371-176-01	CAP, SQUARE	
2	 1-237-614-11	RESISTOR ASSY, HIGH-VOLTAGE		9	4-371-181-01	CAP	
3	4-319-520-11	SCREW, SPECIAL (+PW4X30)		10	X-4374-166-3	COVER ASSY, REAR	
4	*1-621-541-11	HD BOARD		11	4-316-003-21	HOLDER, CORD	11
5	4-381-166-01	KNOB (A), CONTROL		12	*A-1270-213-A	QB BOARD, COMPLETE	
6	*A-1375-066-A	HC BOARD, COMPLETE		13	*3-680-721-00	HOLDER, CHASSIS	
7	4-382-035-21	PANEL, CONTROL		14	*A-1270-212-A	QA BOARD, COMPLETE (AEP, AUS ONLY)	
					*A-1270-223-A	QA BOARD, COMPLETE (WG ONLY)	



## 6-2. CHASSIS

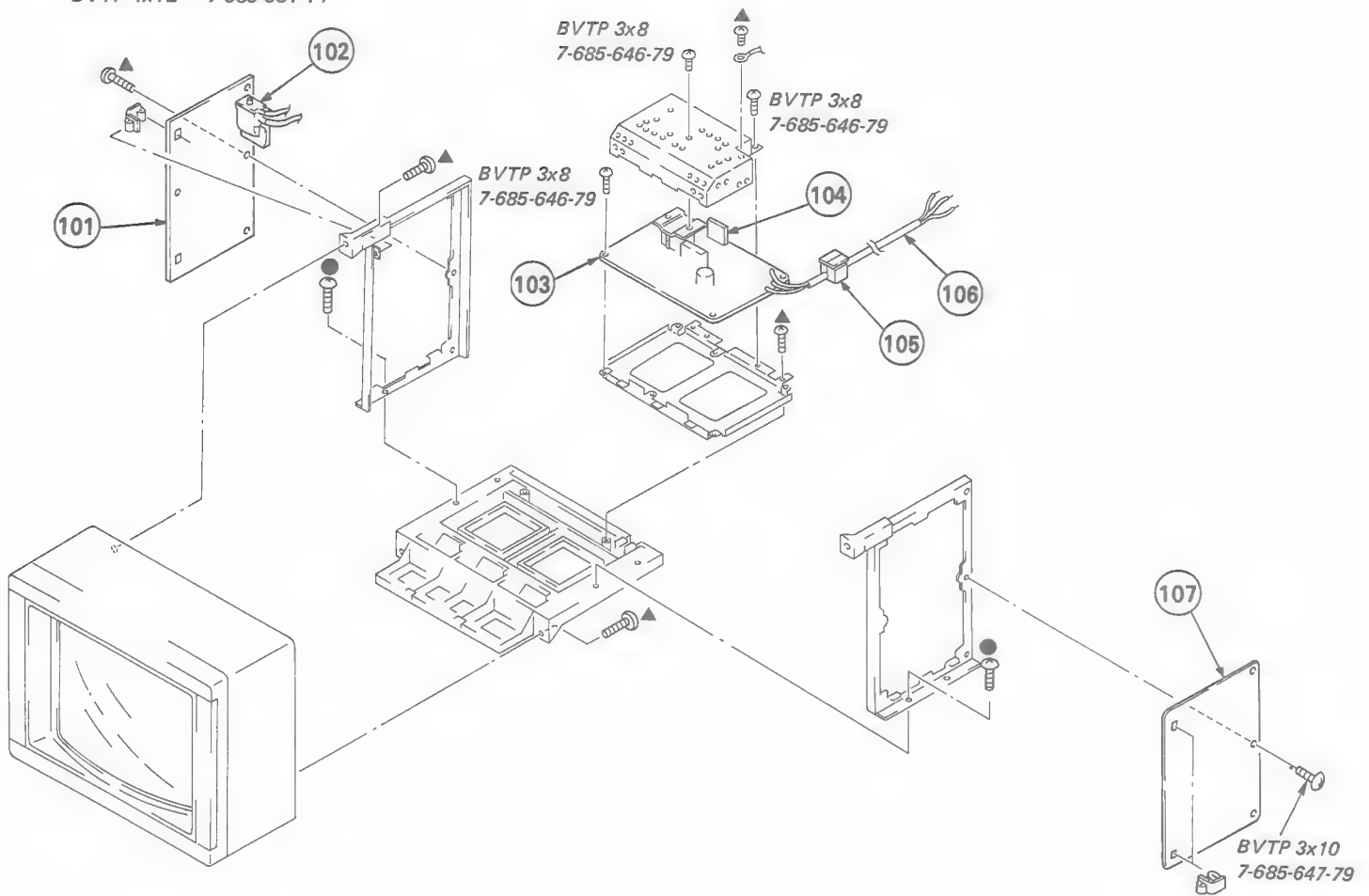


The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

No.	Part No.	Description	Remark	No.	Part No.	Description	Remark
51	1-464-803-11	KEY BOARD UNIT (A)		64	*4-379-167-01	COVER (MAIN), CV	
52	1-464-804-11	KEY BOARD UNIT (B)		65	*A-1330-801-A	C BOARD, COMPLETE	
53	X-4374-194-1	BEZEL ASSY	54	66	*4-379-160-01	COVER (REAR LID), CV	
54	3-703-083-00	+ BV 3X25		67	4-369-318-00	SPRING, TENSION	
55	X-4374-195-1	CABINET ASSY	56, 57	68	*4-369-319-00	BAND, COIL	
56	3-703-025-12	BOLT M5, HEXAGON-HEAD		69	$\Delta$ 1-426-315-11	COIL, DEMAGNETIZATION	
57	4-319-520-11	SCREW, SPECIAL (+PW4X30)		70	*4-383-128-01	COVER, MAIN SWITCH	
58	$\Delta$ 8-736-955-05	PICTURE TUBE (A51JKQ10X)		71	*4-371-182-01	SHAFT	
59	4-373-615-02	WASHER, CRT POSITIONING		72	$\Delta$ 1-554-965-12	SWITCH, PUSH (AC POWER)(1 KEY)	
60	4-306-034-00	FLANGE NUT, (B) 5MM		73	4-308-870-00	CLIP, LEAD WIRE	
61	3-703-003-00	SPACER, DY		74	1-452-032-00	MAGNET, DISK; 10MM $\phi$	
62	$\Delta$ 1-451-295-11	DEFLECTION YOKE (SY-153E)		75	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM $\phi$	
63	1-452-277-00	MAGNET, BMC		76	X-4308-815-0	PERMALLOY ASSY, CONVERGENCE	

### 6-3. BACK COVER

- BVTP 3x12 7-685-648-79  
▲ BVTP 4x12 7-685-661-14

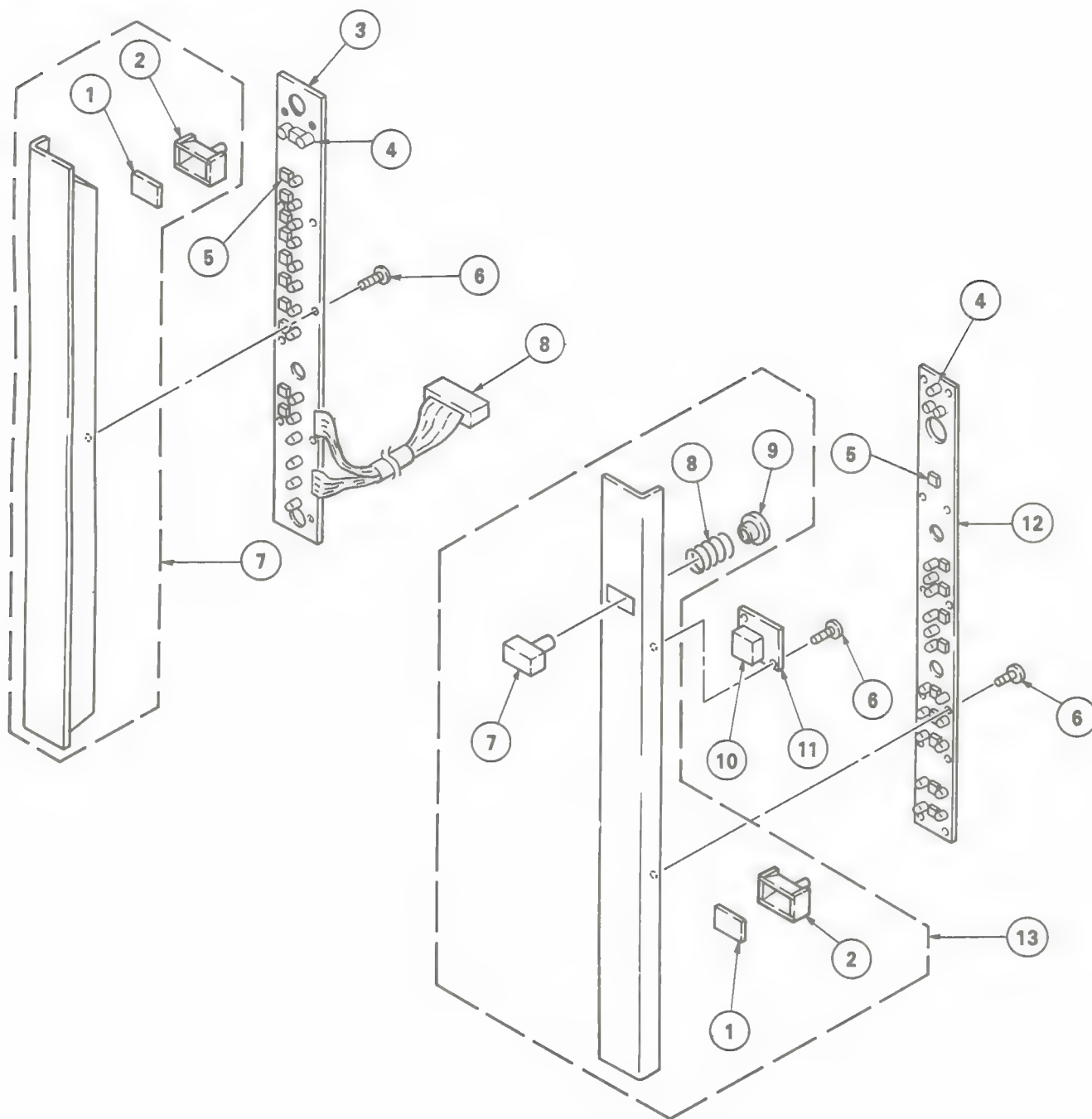


The components identified by shading and mark **A** are critical for safety. Replace only with part number specified.

No.	Part No.	Description	Remark	No.	Part No.	Description	Remark
101	*A-1345-708-A	D BOARD, COMPLETE		105	<del>A</del> .4-364-726-01	BUSHING, AC CORD	
102	<del>A</del> .1-439-372-32	TRANSFORMER ASSY, FLYBACK		106	<del>A</del> .1-534-820-13	POWER CORD (AEP, AUS ONLY)	
103	*A-1245-395-A	FA BOARD, COMPLETE (AEP, AUS ONLY)	104		<del>A</del> .1-559-409-11	<b>POWER CORD (WG ONLY)</b>	
	*A-1245-414-A	FA BOARD, COMPLETE (WG ONLY)	104	107	*A-1135-448-A	B BOARD, COMPLETE	
104	*1-621-548-11	FC BOARD					



#### 6-4. KEY BOARD UNIT



No.	Part No.	Description
1	9-990-892-01	ILLUMINATOR A
2	9-990-891-01	REFLECTOR A
3	*9-992-308-01	HA BOARD
4	9-990-895-01	SPACER
5	1-553-766-00	MT SWITCH (KEY BOARD SWITCH)
6	9-990-894-01	TAPPING SCREW
7	9-992-310-01	FRAME ASSY
8	9-992-309-01	HARNESS

Remark

1,2

No.	Part No.	Description
1	9-990-892-01	ILLUMINATOR A
2	9-990-891-01	REFLECTOR A
4	9-990-895-01	SPACER
5	1-553-766-00	MT SWITCH (KEY BOARD SWITCH)
6	9-990-894-01	TAPPING SCREW
7	9-990-899-01	KEY TOP
8	9-990-902-01	COIL SPRING
9	9-990-900-01	STOPPER
10	8-741-138-70	DETECTOR (BX1387)
11	*9-990-898-01	N BOARD
12	*9-992-401-01	HB BOARD
13	9-992-402-01	FRAME ASSY

Remark

1,2,7,8,9

# SECTION 7

## ELECTRICAL PARTS LIST

B

## NOTE:

The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

## CAPACITORS

- MF :  $\mu$ F, PF :  $\mu$ PF

## RESISTORS

- All resistors are in ohms
- F : nonflammable

## COILS

- MMH : mH, UH :  $\mu$ H

When indicating parts by reference number, please include the board name.

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
	*A-1135-448-A	B BOARD, COMPLETE *****		C138	1-123-307-00	ELECT 100MF 20% 10V	
		CONNECTOR		C139	1-123-356-00	ELECT 10MF 20% 16V	
B1	*1-566-054-11	PIN, CONNECTOR 2P		C140	1-123-356-00	ELECT 10MF 20% 16V	
B2	*1-566-057-11	PIN, CONNECTOR 5P		C141	1-123-330-00	ELECT 22MF 20% 16V	
B4	*1-566-055-11	PIN, CONNECTOR 3P		C161	1-123-333-00	ELECT 100MF 20% 25V	
B5	*1-566-059-11	PIN, CONNECTOR 7P		C162	1-123-321-00	ELECT 220MF 20% 16V	
B6	*1-566-056-11	PIN, CONNECTOR 4P		C167	1-101-004-00	CERAMIC 0.01MF 50V	
B7	*1-566-058-11	PIN, CONNECTOR 6P		C168	1-123-356-00	ELECT 10MF 20% 16V	
B8	*1-566-059-11	PIN, CONNECTOR 7P		C169	1-123-356-00	ELECT 10MF 20% 25V	
B9	*1-566-061-11	PIN, CONNECTOR 9P		C170	1-101-004-00	CERAMIC 0.01MF 50V	
B10	*1-566-065-11	PIN, CONNECTOR 13P		C171	1-123-356-00	ELECT 10MF 20% 16V	
B11	*1-566-061-11	PIN, CONNECTOR 9P		C173	1-101-004-00	CERAMIC 0.01MF 50V	
B13	*1-566-054-11	PIN, CONNECTOR 2P		C174	1-101-004-00	CERAMIC 0.01MF 50V	
B14	*1-566-057-11	PIN, CONNECTOR 5P		C175	1-101-006-00	CERAMIC 0.047MF 50V	
B15	*1-508-766-00	4P PLUG (M)		C177	1-119-354-00	ELECT 330MF 10V	
B16	*1-566-056-11	PIN, CONNECTOR 4P		C178	1-101-004-00	CERAMIC 0.01MF 50V	
B17	*1-566-054-11	PIN, CONNECTOR 2P		C179	1-101-006-00	CERAMIC 0.047MF 50V	
B18	*1-566-055-11	PIN, CONNECTOR 3P		C180	1-123-307-00	ELECT 100MF 20% 10V	
B19	*1-566-057-11	PIN, CONNECTOR 5P		C181	1-123-332-00	ELECT 47MF 20% 16V	
B20	*1-566-058-11	PIN, CONNECTOR 6P		C182	1-101-006-00	CERAMIC 0.047MF 50V	
B21	*1-566-054-11	PIN, CONNECTOR 2P		C183	1-119-352-00	ELECT 100MF 10V	
		CAPACITOR		C185	1-123-307-00	ELECT 100MF 20% 10V	
C101	1-123-356-00	ELECT 10MF 20% 16V		C186	1-123-356-00	ELECT 10MF 20% 16V	
C103	1-102-973-00	CERAMIC 100PF 5% 50V		C187	1-123-330-00	ELECT 22MF 20% 16V	
C104	1-123-306-00	ELECT 47MF 20% 10V		C301	1-123-333-00	ELECT 100MF 20% 16V	
C105	1-136-161-00	FILM 0.047MF 5% 50V		C302	1-101-888-00	CERAMIC 68PF 5% 50V	
C106	1-102-963-00	CERAMIC 33PF 5% 50V		C303	1-123-369-00	ELECT 4.7MF 20% 25V	
C107	1-102-963-00	CERAMIC 33PF 5% 50V		C304	1-123-356-00	ELECT 10MF 20% 16V	
C108	1-102-978-00	CERAMIC 220PF 5% 50V		C305	1-110-201-00	MYLAR 0.0033MF 5% 50V	
C110	1-123-333-00	ELECT 100MF 20% 25V		C306	1-101-006-00	CERAMIC 0.047MF 50V	
C112	1-123-335-00	ELECT 330MF 20% 25V		C307	1-101-006-00	CERAMIC 0.047MF 50V	
C113	1-123-318-00	ELECT 33MF 20% 16V		C308	1-123-381-00	ELECT 2.2MF 20% 50V	
C114	1-123-333-00	ELECT 100MF 20% 25V		C309	1-102-946-00	CERAMIC 9PF 0.5PF 50V	
C115	1-123-333-00	ELECT 100MF 20% 16V		C310	1-123-356-00	ELECT 10MF 20% 16V	
C116	1-101-006-00	CERAMIC 0.047MF 50V		C311	1-136-157-00	FILM 0.022MF 5% 50V	
C118	1-101-004-00	CERAMIC 0.01MF 50V		C312	1-136-157-00	FILM 0.022MF 5% 50V	
C119	1-123-300-00	ELECT 22MF 20% 16V		C313	1-102-074-00	CERAMIC 0.001MF 10% 50V	
C120	1-123-330-00	ELECT 22MF 20% 25V		C314	1-101-006-00	CERAMIC 0.047MF 50V	
C121	1-123-356-00	ELECT 10MF 20% 16V		C315	1-101-006-00	CERAMIC 0.047MF 50V	
C123	1-101-006-00	CERAMIC 0.047MF 50V		C316	1-136-169-00	FILM 0.22MF 5% 50V	
C125	1-123-380-00	ELECT 1MF 20% 50V		C317	1-102-074-00	CERAMIC 0.001MF 10% 50V	
C126	1-123-380-00	ELECT 1MF 20% 50V		C322	1-101-006-00	CERAMIC 0.047MF 50V	
C127	1-123-380-00	ELECT 1MF 20% 50V		C323	1-124-464-11	ELECT 0.22MF 20% 50V	
C128	1-123-380-00	ELECT 1MF 20% 50V		C324	1-124-464-11	ELECT 0.22MF 20% 50V	
C131	1-130-475-00	MYLAR 0.0022MF 5% 50V		C325	1-123-333-00	ELECT 100MF 20% 16V	
C133	1-123-380-00	ELECT 1MF 20% 50V		C326	1-124-464-11	ELECT 0.22MF 20% 50V	
C134	1-123-380-00	ELECT 1MF 20% 50V		C327	1-102-111-00	CERAMIC 270PF 10% 50V	
C135	1-123-381-00	ELECT 2.2MF 20% 50V		C330	1-101-006-00	CERAMIC 0.047MF 50V	
C136	1-101-006-00	CERAMIC 0.047MF 50V		C331	1-123-380-00	ELECT 1MF 20% 50V	
C137	1-123-307-00	ELECT 100MF 20% 10V		C332	1-136-161-00	FILM 0.047MF 5% 50V	
				C333	1-102-959-00	CERAMIC 22PF 5% 50V	
				C334	1-123-380-00	ELECT 1MF 20% 50V	
				C335	1-123-307-00	ELECT 100MF 20% 10V	



**B**

Ref.No.	Part No.	Description			Remark	Ref.No.	Part No.	Description			Remark
C336	1-123-318-00	ELECT	33MF	20%	16V	C1302	1-124-656-00	ELECT	2.2MF	20%	50V
C337	1-102-112-00	CERAMIC	330PF	10%	50V	C1304	1-123-356-00	ELECT	10MF	20%	16V
C341	1-123-380-00	ELECT	1MF	20%	50V	C1305	1-136-161-00	FILM	0.047MF	5%	50V
C346	1-123-380-00	ELECT	1MF	20%	50V	C1306	1-123-380-00	ELECT	1MF	20%	50V
C347	1-102-111-00	CERAMIC	270PF	10%	50V	C1316	1-123-356-00	ELECT	10MF	20%	25V
C350	1-123-356-00	ELECT	10MF	20%	16V	C1317	1-123-380-00	ELECT	1MF	20%	50V
C351	1-102-074-00	CERAMIC	0.001MF	10%	50V	C1318	1-123-380-00	ELECT	1MF	20%	50V
C352	1-101-361-00	CERAMIC	150PF	5%	50V	C1319	1-123-380-00	ELECT	1MF	20%	50V
C353	1-102-959-00	CERAMIC	22PF	5%	50V	C1320	1-123-382-00	ELECT	3.3MF	20%	50V
C354	1-123-380-00	ELECT	1MF	20%	50V	C1321	1-123-356-00	ELECT	10MF	20%	25V
C355	1-101-005-00	CERAMIC	0.022MF		50V	C1322	1-101-004-00	CERAMIC	0.01MF		50V
C381	1-102-074-00	CERAMIC	0.001MF	10%	50V	C1323	1-123-356-00	ELECT	10MF	20%	25V
C382	1-123-332-00	ELECT	47MF	20%	16V	C1324	1-123-332-00	ELECT	47MF	20%	16V
C402	1-136-167-00	FILM	0.15MF	5%	50V	C1325	1-101-006-00	CERAMIC	0.047MF		50V
C404	1-136-165-00	FILM	0.1MF	5%	50V	C1326	1-101-006-00	CERAMIC	0.047MF		50V
C405	1-102-806-00	CERAMIC	27PF	5%	50V	C1329	1-123-318-00	ELECT	33MF	20%	16V
C406	1-101-890-00	CERAMIC	75PF	5%	50V	C1333	1-136-153-00	FILM	0.01MF	5%	50V
C408	1-123-356-00	ELECT	10MF	20%	16V	C1334	1-101-004-00	CERAMIC	0.01MF		50V
C410	1-123-356-00	ELECT	10MF	20%	50V	C1336	1-110-203-00	MYLAR	0.0047MF	5%	50V
C411	1-136-161-00	FILM	0.047MF	5%	50V	C1338	1-136-161-00	FILM	0.047MF	5%	50V
C412	1-102-119-00	CERAMIC	0.0015MF	10%	50V	C1339	1-136-153-00	FILM	0.01MF	5%	50V
C413	1-123-380-00	ELECT	1MF	20%	50V	C1341	1-110-203-00	MYLAR	0.0047MF	5%	50V
C414	1-136-173-00	FILM	0.47MF	5%	50V	C1343	1-136-161-00	FILM	0.047MF	5%	50V
C415	1-101-005-00	CERAMIC	0.022MF		50V	C1344	1-136-153-00	FILM	0.01MF	5%	50V
C416	1-123-356-00	ELECT	10MF	20%	16V	C1346	1-110-203-00	MYLAR	0.0047MF	5%	50V
C417	1-123-356-00	ELECT	10MF	20%	16V	C1351	1-123-356-00	ELECT	10MF	20%	25V
C418	1-136-161-00	FILM	0.047MF	5%	50V	C1352	1-123-332-00	ELECT	47MF	20%	16V
C419	1-123-380-00	ELECT	1MF	20%	50V	C1353	1-102-973-00	CERAMIC	100PF	5%	50V
C420	1-101-890-00	CERAMIC	75PF	5%	50V	C1354	1-136-157-00	FILM	0.022MF	5%	50V
C421	1-102-806-00	CERAMIC	27PF	5%	50V	C1355	1-123-380-00	ELECT	1MF	20%	50V
C423	1-136-165-00	FILM	0.1MF	5%	50V	C1356	1-136-165-00	FILM	0.1MF	5%	50V
C424	1-123-356-00	ELECT	10MF	20%	16V	C1357	1-123-380-00	ELECT	1MF	20%	50V
C425	1-102-888-00	CERAMIC	150PF	5%	50V	C1358	1-123-369-00	ELECT	4.7MF	20%	50V
C426	1-101-004-00	CERAMIC	0.01MF		50V	C1359	1-102-820-00	CERAMIC	330PF	5%	50V
C427	1-101-006-00	CERAMIC	0.047MF		50V	C1360	1-102-820-00	CERAMIC	330PF	5%	50V
C428	1-102-121-00	CERAMIC	0.0022MF	10%	50V	C1361	1-102-129-00	CERAMIC	0.01MF	10%	50V
C429	1-136-161-00	FILM	0.047MF	5%	50V	C1362	1-130-475-00	MYLAR	0.0022MF	5%	50V
C430	1-102-971-00	CERAMIC	82PF	5%	50V	C1390	1-101-004-00	CERAMIC	0.01MF		50V
C434	1-102-112-00	CERAMIC	330PF	10%	50V	C1391	1-123-356-00	ELECT	10MF	20%	16V
C452	1-136-169-00	FILM	0.22MF	5%	50V	C1392	1-123-356-00	ELECT	10MF	20%	16V
C453	1-123-333-00	ELECT	100MF	20%	16V	C1393	1-101-004-00	CERAMIC	0.01MF		50V
C454	1-102-963-00	CERAMIC	33PF	5%	50V	<u>TRIMMER</u>					
C466	1-102-115-00	CERAMIC	560PF	10%	50V	CT358	1-141-181-11	CAP, TRIMMER			
C470	1-123-333-00	ELECT	100MF	20%	16V	CT443	1-141-181-11	CAP, TRIMMER			
C472	1-123-356-00	ELECT	10MF	20%	16V	<u>DIODE</u>					
C473	1-101-361-00	CERAMIC	150PF	5%	50V	D101	8-719-109-97	DIODE RD6.8ES-B2			
C474	1-102-662-00	CERAMIC	7PF	0.5PF	50V	D102	8-719-109-97	DIODE RD6.8ES-B2			
C475	1-102-662-00	CERAMIC	7PF	0.5PF	50V	D103	8-719-911-19	DIODE 1SS119			
C476	1-102-662-00	CERAMIC	7PF	0.5PF	50V	D104	8-719-109-68	DIODE RD3.6ES-B1			
C477	1-102-662-00	CERAMIC	7PF	0.5PF	50V	D108	8-719-911-19	DIODE 1SS119			
C481	1-108-614-91	MYLAR	0.001MF	10%	100V						
C482	1-102-820-00	CERAMIC	330PF	5%	50V						
C484	1-136-165-00	FILM	0.1MF		50V						
C1301	1-101-004-00	CERAMIC	0.01MF		50V						





**B**

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
Q117	8-729-178-54	TRANSISTOR 2SC2785		Q1302	8-729-178-54	TRANSISTOR 2SC2785	
Q118	8-729-117-54	TRANSISTOR 2SA1175		Q1303	8-729-117-54	TRANSISTOR 2SA1175	
Q119	8-729-117-54	TRANSISTOR 2SA1175		RESISTOR			
Q121	8-729-133-42	TRANSISTOR 2SC2334-L		R101	1-249-395-11	CARBON 15 5% 1/6W	
	*4-363-146-00	HEAT SINK, V.OUT; Q121		R102	1-249-395-11	CARBON 15 5% 1/6W	
Q122	8-729-117-54	TRANSISTOR 2SA1175		R103	1-249-441-11	CARBON 100K 5% 1/6W	
Q123	8-729-178-54	TRANSISTOR 2SC2785		R104	1-249-441-11	CARBON 100K 5% 1/6W	
Q301	8-729-117-54	TRANSISTOR 2SA1175		R105	1-247-805-00	CARBON 82 5% 1/6W	
Q309	8-729-178-54	TRANSISTOR 2SC2785		R106	1-249-413-11	CARBON 470 5% 1/6W	
Q310	8-729-117-54	TRANSISTOR 2SA1175		R107	1-249-411-11	CARBON 330 5% 1/6W	
Q311	8-729-177-43	TRANSISTOR 2SD774		R108	1-249-441-11	CARBON 100K 5% 1/6W	
Q315	8-729-178-54	TRANSISTOR 2SC2785		R109	1-249-433-11	CARBON 22K 5% 1/6W	
Q316	8-729-178-54	TRANSISTOR 2SC2785		R110	1-249-465-11	CARBON 47K 5% 1/4W	
Q321	8-729-178-54	TRANSISTOR 2SC2785		R111	1-249-437-11	CARBON 47K 5% 1/6W	
Q322	8-729-178-54	TRANSISTOR 2SC2785		R114	1-249-437-11	CARBON 47K 5% 1/6W	
Q324	8-729-178-54	TRANSISTOR 2SC2785		R116	1-249-414-11	CARBON 560 5% 1/6W	
Q331	8-729-178-54	TRANSISTOR 2SC2785		R117	1-249-429-11	CARBON 10K 5% 1/6W	
Q341	8-729-178-54	TRANSISTOR 2SC2785		R118	1-249-429-11	CARBON 10K 5% 1/6W	
Q342	8-729-178-54	TRANSISTOR 2SC2785		R119	1-249-429-11	CARBON 10K 5% 1/6W	
Q343	8-729-178-54	TRANSISTOR 2SC2785		R121	1-215-867-00	METAL OXIDE 470 5% 1W F	
Q353	8-729-178-54	TRANSISTOR 2SC2785		R122	1-249-417-11	CARBON 1K 5% 1/6W	
Q354	8-729-900-36	TRANSISTOR DTC124ES		R123	1-216-357-00	METAL OXIDE 4.7 5% 1W F	
Q355	8-729-178-54	TRANSISTOR 2SC2785		R124	1-249-433-11	CARBON 22K 5% 1/6W	
Q357	8-729-117-54	TRANSISTOR 2SA1175		R125	1-249-435-11	CARBON 33K 5% 1/6W	
Q358	8-729-900-36	TRANSISTOR DTC124ES		R126	1-249-431-11	CARBON 15K 5% 1/6W	
Q361	8-729-117-54	TRANSISTOR 2SA1175		R127	1-249-417-11	CARBON 1K 5% 1/6W	
Q362	8-729-117-54	TRANSISTOR 2SA1175		R128	1-249-434-11	CARBON 27K 5% 1/6W	
Q363	8-729-117-54	TRANSISTOR 2SA1175		R129	1-247-717-11	CARBON 2.2K 5% 1/4W	
Q371	8-729-178-54	TRANSISTOR 2SC2785		R130	1-247-706-11	CARBON 330 5% 1/4W	
Q372	8-729-178-54	TRANSISTOR 2SC2785		R131	1-249-409-11	CARBON 220 5% 1/6W	
Q373	8-729-178-54	TRANSISTOR 2SC2785		R132	1-249-409-11	CARBON 220 5% 1/6W	
Q374	8-729-178-54	TRANSISTOR 2SC2785		R133	1-249-421-11	CARBON 2.2K 5% 1/6W	
Q393	8-729-117-54	TRANSISTOR 2SA1175		R134	1-249-421-11	CARBON 2.2K 5% 1/6W	
Q400	8-729-178-54	TRANSISTOR 2SC2785		R135	1-249-437-11	CARBON 47K 5% 1/6W	
Q401	8-729-178-54	TRANSISTOR 2SC2785		R136	1-249-417-11	CARBON 1K 5% 1/6W	
Q402	8-729-178-54	TRANSISTOR 2SC2785		R137	1-249-421-11	CARBON 2.2K 5% 1/6W	
Q403	8-729-117-54	TRANSISTOR 2SA1175		R138	1-249-421-11	CARBON 2.2K 5% 1/6W	
Q405	8-729-178-54	TRANSISTOR 2SC2785		R139	1-249-421-11	CARBON 2.2K 5% 1/6W	
Q406	8-729-117-54	TRANSISTOR 2SA1175		R140	1-249-421-11	CARBON 2.2K 5% 1/6W	
Q407	8-729-178-54	TRANSISTOR 2SC2785		R141	1-247-717-11	CARBON 2.2K 5% 1/4W	
Q450	8-729-117-54	TRANSISTOR 2SA1175		R142	1-249-421-11	CARBON 2.2K 5% 1/6W	
Q451	8-729-178-54	TRANSISTOR 2SC2785		R143	1-249-429-11	CARBON 10K 5% 1/6W	
Q452	8-729-178-54	TRANSISTOR 2SC2785		R144	1-249-429-11	CARBON 10K 5% 1/6W	
Q453	8-729-117-54	TRANSISTOR 2SA1175		R145	1-249-437-11	CARBON 47K 5% 1/6W	
Q454	8-729-117-54	TRANSISTOR 2SA1175		R146	1-249-425-11	CARBON 4.7K 5% 1/6W	
Q455	8-729-178-54	TRANSISTOR 2SC2785		R147	1-249-441-11	CARBON 100K 5% 1/6W	
Q456	8-729-117-54	TRANSISTOR 2SA1175		R148	1-249-434-11	CARBON 27K 5% 1/6W	
Q457	8-729-178-54	TRANSISTOR 2SC2785		R149	1-249-427-11	CARBON 6.8K 5% 1/6W	
Q458	8-729-117-54	TRANSISTOR 2SA1175		R150	1-249-427-11	CARBON 6.8K 5% 1/6W	
Q459	8-729-117-54	TRANSISTOR 2SA1175		R151	1-249-423-11	CARBON 3.3K 5% 1/6W	
Q460	8-729-178-54	TRANSISTOR 2SC2785		R152	1-249-421-11	CARBON 2.2K 5% 1/6W	
Q461	8-729-178-54	TRANSISTOR 2SC2785		R153	1-249-421-11	CARBON 2.2K 5% 1/6W	
Q1301	8-729-178-54	TRANSISTOR 2SC2785					

B

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R154	1-249-421-11	CARBON	2.2K 5% 1/6W	R313	1-249-421-11	CARBON	2.2K 5% 1/6W
R155	1-247-717-11	CARBON	2.2K 5% 1/4W	R314	1-249-409-11	CARBON	220 5% 1/6W
R156	1-249-423-11	CARBON	3.3K 5% 1/6W	R315	1-249-433-11	CARBON	22K 5% 1/6W
R157	1-249-433-11	CARBON	22K 5% 1/6W	R316	1-249-435-11	CARBON	33K 5% 1/6W
R158	1-249-417-11	CARBON	1K 5% 1/6W	R317	1-249-421-11	CARBON	2.2K 5% 1/6W
R159	1-249-418-11	CARBON	1.2K 5% 1/6W	R318	1-249-409-11	CARBON	220 5% 1/6W
R160	1-249-397-11	CARBON	22 5% 1/6W	R319	1-249-433-11	CARBON	22K 5% 1/6W
R161	1-249-397-11	CARBON	22 5% 1/6W	R320	1-249-435-11	CARBON	33K 5% 1/6W
R162	1-249-397-11	CARBON	22 5% 1/6W	R321	1-249-435-11	CARBON	33K 5% 1/6W
R163	1-249-397-11	CARBON	22 5% 1/6W	R322	1-249-429-11	CARBON	10K 5% 1/6W
R164	1-249-397-11	CARBON	22 5% 1/6W	R323	1-249-441-11	CARBON	100K 5% 1/6W
R165	1-247-692-11	CARBON	22 5% 1/4W	R324	1-249-441-11	CARBON	100K 5% 1/6W
R166	1-249-397-11	CARBON	22 5% 1/6W	R326	1-249-441-11	CARBON	100K 5% 1/6W
R167	1-249-397-11	CARBON	22 5% 1/6W	R327	1-249-423-11	CARBON	3.3K 5% 1/6W
R168	1-249-397-11	CARBON	22 5% 1/6W	R328	1-249-423-11	CARBON	3.3K 5% 1/6W
R169	1-249-397-11	CARBON	22 5% 1/6W	R329	1-249-423-11	CARBON	3.3K 5% 1/6W
R170	1-249-397-11	CARBON	22 5% 1/6W	R330	1-249-417-11	CARBON	1K 5% 1/6W
R171	1-249-397-11	CARBON	22 5% 1/6W	R331	1-215-493-00	CARBON	1M 5% 1/6W
R172	1-249-397-11	CARBON	22 5% 1/6W	R332	1-215-479-00	CARBON	270K 5% 1/6W
R173	1-249-397-11	CARBON	22 5% 1/6W	R333	1-249-414-11	CARBON	560 5% 1/6W
R174	1-249-429-11	CARBON	10K 5% 1/6W	R334	1-247-883-00	CARBON	150K 5% 1/6W
R175	1-249-429-11	CARBON	10K 5% 1/6W	R335	1-249-413-11	CARBON	470 5% 1/6W
R176	1-247-725-11	CARBON	10K 5% 1/4W	R336	1-249-409-11	CARBON	220 5% 1/6W
R177	1-249-433-11	CARBON	22K 5% 1/6W	R337	1-249-427-11	CARBON	6.8K 5% 1/6W
R178	1-249-433-11	CARBON	22K 5% 1/6W	R338	1-249-421-11	CARBON	2.2K 5% 1/6W
R179	1-249-425-11	CARBON	4.7K 5% 1/6W	R339	1-249-417-11	CARBON	1K 5% 1/6W
R181	1-249-435-11	CARBON	33K 5% 1/6W	R340	1-249-421-11	CARBON	2.2K 5% 1/6W
R182	1-247-849-00	CARBON	5.6K 5% 1/6W	R341	1-249-422-11	CARBON	2.7K 5% 1/6W
R183	1-249-433-11	CARBON	22K 5% 1/6W	R342	1-249-428-11	CARBON	8.2K 5% 1/6W
R184	1-249-435-11	CARBON	33K 5% 1/6W	R343	1-249-433-11	CARBON	22K 5% 1/6W
R185	1-247-713-11	CARBON	1K 5% 1/4W	R345	1-249-439-11	CARBON	68K 5% 1/6W
R186	1-249-417-11	CARBON	1K 5% 1/6W	R346	1-247-849-00	CARBON	5.6K 5% 1/6W
R187	1-249-417-11	CARBON	1K 5% 1/6W	R350	1-249-413-11	CARBON	470 5% 1/6W
R188	1-249-417-11	CARBON	1K 5% 1/6W	R351	1-249-405-11	CARBON	100 5% 1/6W
R189	1-249-417-11	CARBON	1K 5% 1/6W	R352	1-249-433-11	CARBON	22K 5% 1/6W
R190	1-249-417-11	CARBON	1K 5% 1/6W	R353	1-249-420-11	CARBON	1.8K 5% 1/6W
R191	1-249-414-11	CARBON	560 5% 1/6W	R354	1-249-435-11	CARBON	33K 5% 1/6W
R192	1-249-417-11	CARBON	1K 5% 1/6W	R355	1-249-433-11	CARBON	22K 5% 1/6W
R193	1-249-423-11	CARBON	3.3K 5% 1/6W	R356	1-249-437-11	CARBON	47K 5% 1/6W
R194	1-249-423-11	CARBON	3.3K 5% 1/6W	R357	1-249-430-11	CARBON	12K 5% 1/6W
R195	1-249-421-11	CARBON	2.2K 5% 1/6W	R358	1-249-435-11	CARBON	33K 5% 1/6W
R196	1-249-414-11	CARBON	560 5% 1/6W	R359	1-247-883-00	CARBON	150K 5% 1/6W
R197	1-249-421-11	CARBON	2.2K 5% 1/6W	R360	1-247-708-11	CARBON	470 5% 1/4W
R198	1-249-405-11	CARBON	100 5% 1/6W	R361	1-249-417-11	CARBON	1K 5% 1/6W
R199	1-249-417-11	CARBON	1K 5% 1/6W	R362	1-249-429-11	CARBON	10K 5% 1/6W
R303	1-249-469-11	CARBON	100K 5% 1/4W	R363	1-249-417-11	CARBON	1K 5% 1/6W
R304	1-249-436-11	CARBON	39K 5% 1/6W	R364	1-249-412-11	CARBON	390 5% 1/6W
R305	1-247-883-00	CARBON	150K 5% 1/6W	R365	1-247-723-11	CARBON	6.8K 5% 1/4W
R306	1-249-435-11	CARBON	33K 5% 1/6W	R366	1-247-891-00	CARBON	330K 5% 1/6W
R308	1-249-409-11	CARBON	220 5% 1/6W	R367	1-249-437-11	CARBON	47K 5% 1/6W
R310	1-247-722-11	CARBON	5.6K 5% 1/4W	R368	1-249-428-11	CARBON	8.2K 5% 1/6W
R311	1-249-439-11	CARBON	68K 5% 1/6W	R370	1-249-419-11	CARBON	1.5K 5% 1/6W
R312	1-249-439-11	CARBON	68K 5% 1/6W	R371	1-249-435-11	CARBON	33K 5% 1/6W



**B**

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R372	1-249-441-11	CARBON	100K 5% 1/6W	R438	1-249-431-11	CARBON	15K 5% 1/6W
R373	1-249-435-11	CARBON	33K 5% 1/6W	R439	1-249-418-11	CARBON	1.2K 5% 1/6W
R374	1-249-435-11	CARBON	33K 5% 1/6W	R440	1-249-417-11	CARBON	1K 5% 1/6W
R375	1-249-423-11	CARBON	3.3K 5% 1/6W	R441	1-249-420-11	CARBON	1.8K 5% 1/6W
R377	1-249-409-11	CARBON	220 5% 1/6W	R442	1-249-421-11	CARBON	2.2K 5% 1/6W
R378	1-249-414-11	CARBON	560 5% 1/6W	R443	1-249-408-11	CARBON	180 5% 1/6W
R379	1-249-429-11	CARBON	10K 5% 1/6W	R444	1-249-439-11	CARBON	68K 5% 1/6W
R380	1-249-437-11	CARBON	47K 5% 1/6W	R445	1-249-431-11	CARBON	15K 5% 1/6W
R381	1-249-440-11	CARBON	82K 5% 1/6W	R446	1-249-417-11	CARBON	1K 5% 1/6W
R382	1-249-438-11	CARBON	56K 5% 1/6W	R447	1-249-414-11	CARBON	560 5% 1/6W
R383	1-215-479-00	CARBON	270K 5% 1/6W	R448	1-249-393-11	CARBON	10 5% 1/6W
R384	1-249-425-11	CARBON	4.7K 5% 1/6W	R449	1-249-418-11	CARBON	1.2K 5% 1/6W
R385	1-249-414-11	CARBON	560 5% 1/6W	R450	1-249-419-11	CARBON	1.5K 5% 1/6W
R386	1-249-429-11	CARBON	10K 5% 1/6W	R451	1-249-420-11	CARBON	1.8K 5% 1/6W
R387	1-249-417-11	CARBON	1K 5% 1/6W	R452	1-249-393-11	CARBON	10 5% 1/6W
R388	1-215-483-00	CARBON	390K 5% 1/6W	R453	1-249-419-11	CARBON	1.5K 5% 1/6W
R389	1-249-433-11	CARBON	22K 5% 1/6W	R454	1-249-419-11	CARBON	1.5K 5% 1/6W
R390	1-249-433-11	CARBON	22K 5% 1/6W	R456	1-249-409-11	CARBON	220 5% 1/6W
R391	1-249-437-11	CARBON	47K 5% 1/6W	R457	1-249-435-11	CARBON	33K 5% 1/6W
R392	1-249-431-11	CARBON	15K 5% 1/6W	R458	1-249-425-11	CARBON	4.7K 5% 1/6W
R393	1-249-435-11	CARBON	33K 5% 1/6W	R460	1-249-436-11	CARBON	39K 5% 1/6W
R394	1-249-429-11	CARBON	10K 5% 1/6W	R461	1-249-431-11	CARBON	15K 5% 1/6W
R395	1-247-895-00	CARBON	470K 5% 1/6W	R462	1-249-421-11	CARBON	2.2K 5% 1/6W
R396	1-249-419-11	CARBON	1.5K 5% 1/6W	R463	1-249-422-11	CARBON	2.7K 5% 1/6W
R398	1-249-420-11	CARBON	1.8K 5% 1/6W	R464	1-249-409-11	CARBON	220 5% 1/6W
R401	1-249-412-11	CARBON	390 5% 1/6W	R465	1-249-435-11	CARBON	33K 5% 1/6W
R402	1-247-717-11	CARBON	2.2K 5% 1/4W	R466	1-247-721-11	CARBON	4.7K 5% 1/4W
R403	1-249-427-11	CARBON	6.8K 5% 1/6W	R467	1-215-456-00	CARBON	30K 5% 1/6W
R404	1-249-429-11	CARBON	10K 5% 1/6W	R468	1-249-429-11	CARBON	10K 5% 1/6W
R406	1-249-412-11	CARBON	390 5% 1/6W	R470	1-249-420-11	CARBON	1.8K 5% 1/6W
R410	1-249-422-11	CARBON	2.7K 5% 1/6W	R471	1-249-425-11	CARBON	4.7K 5% 1/6W
R411	1-215-489-00	CARBON	680K 5% 1/6W	R472	1-249-420-11	CARBON	1.8K 5% 1/6W
R412	1-249-417-11	CARBON	1K 5% 1/6W	R473	1-249-425-11	CARBON	4.7K 5% 1/6W
R413	1-249-425-11	CARBON	4.7K 5% 1/6W	R474	1-249-417-11	CARBON	1K 5% 1/6W
R414	1-249-438-11	CARBON	56K 5% 1/6W	R475	1-249-405-11	CARBON	100 5% 1/6W
R415	1-249-429-11	CARBON	10K 5% 1/6W	R476	1-249-416-11	CARBON	820 5% 1/6W
R418	1-247-720-11	CARBON	3.9K 5% 1/4W	R477	1-249-413-11	CARBON	470 5% 1/6W
R419	1-249-429-11	CARBON	10K 5% 1/6W	R478	1-249-421-11	CARBON	2.2K 5% 1/6W
R420	1-249-412-11	CARBON	390 5% 1/6W	R479	1-249-421-11	CARBON	2.2K 5% 1/6W
R421	1-249-438-11	CARBON	56K 5% 1/6W	R480	1-249-429-11	CARBON	10K 5% 1/6W
R422	1-249-427-11	CARBON	6.8K 5% 1/6W	R481	1-249-429-11	CARBON	10K 5% 1/6W
R425	1-249-408-11	CARBON	180 5% 1/6W	R482	1-249-421-11	CARBON	2.2K 5% 1/6W
R426	1-249-435-11	CARBON	33K 5% 1/6W	R483	1-249-421-11	CARBON	2.2K 5% 1/6W
R427	1-249-423-11	CARBON	3.3K 5% 1/6W	R484	1-249-433-11	CARBON	22K 5% 1/6W
R429	1-249-429-11	CARBON	10K 5% 1/6W	R485	1-249-417-11	CARBON	1K 5% 1/6W
R430	1-249-423-11	CARBON	3.3K 5% 1/6W	R486	1-249-435-11	CARBON	33K 5% 1/6W
R431	1-249-425-11	CARBON	4.7K 5% 1/6W	R487	1-249-435-11	CARBON	33K 5% 1/6W
R432	1-249-428-11	CARBON	8.2K 5% 1/6W	R488	1-249-435-11	CARBON	33K 5% 1/6W
R433	1-249-428-11	CARBON	8.2K 5% 1/6W	R1100	1-249-405-11	CARBON	100 5% 1/6W
R434	1-249-418-11	CARBON	1.2K 5% 1/6W	R1101	1-249-437-11	CARBON	47K 5% 1/6W
R435	1-249-417-11	CARBON	1K 5% 1/6W	R1102	1-249-429-11	CARBON	10K 5% 1/6W
R436	1-249-421-11	CARBON	2.2K 5% 1/6W	R1105	1-249-431-11	CARBON	15K 5% 1/6W
R437	1-249-431-11	CARBON	15K 5% 1/6W	R1106	1-249-399-11	CARBON	33 5% 1/6W

**B** **FA**

Ref.No.	Part No.	Description				Remark	Ref.No.	Part No.	Description				Remark
R1107	1-249-437-11	CARBON	47K	5%	1/6W		R1367	1-202-730-00	SOLID	8.2M	10%	1/2W	
R1108	1-249-405-11	CARBON	100	5%	1/6W		R1368	1-249-411-11	CARBON	330	5%	1/6W	
R1109	1-249-429-11	CARBON	10K	5%	1/6W		R1369	1-249-413-11	CARBON	470	5%	1/6W	
R1110	1-249-430-11	CARBON	12K	5%	1/6W		R1370	1-249-409-11	CARBON	220	5%	1/6W	
R1111	1-249-437-11	CARBON	47K	5%	1/6W		R1371	1-249-413-11	CARBON	470	5%	1/6W	
R1112	1-249-441-11	CARBON	100K	5%	1/6W		R1375	1-249-425-11	CARBON	4.7K	5%	1/6W	
R1114	1-249-393-11	CARBON	10	5%	1/6W		R1376	1-215-479-00	CARBON	270K	5%	1/6W	
R1115	1-249-425-11	CARBON	4.7K	5%	1/6W		R1377	1-249-434-11	CARBON	27K	5%	1/6W	
R1304	1-247-704-11	CARBON	220	5%	1/4W		R1378	1-249-410-11	CARBON	270	5%	1/6W	
R1305	1-247-704-11	CARBON	220	5%	1/4W		R1379	1-249-405-11	CARBON	100	5%	1/6W	
R1306	1-247-704-11	CARBON	220	5%	1/4W		R1401	1-249-433-11	CARBON	22K	5%	1/6W	
R1307	1-247-704-11	CARBON	220	5%	1/4W		R1402	1-249-433-11	CARBON	22K	5%	1/6W	
R1308	1-249-429-11	CARBON	10K	5%	1/6W		R1403	1-249-433-11	CARBON	22K	5%	1/6W	
R1309	1-247-704-11	CARBON	220	5%	1/4W		R1404	1-249-433-11	CARBON	22K	5%	1/6W	
R1310	1-249-437-11	CARBON	47K	5%	1/6W		R1405	1-249-437-11	CARBON	47K	5%	1/6W	
R1311	1-249-409-11	CARBON	220	5%	1/6W		R1406	1-249-437-11	CARBON	47K	5%	1/6W	
R1312	1-247-887-00	CARBON	220K	5%	1/6W		R1407	1-249-437-11	CARBON	47K	5%	1/6W	
R1313	1-247-725-11	CARBON	10K	5%	1/4W		R1408	1-249-437-11	CARBON	47K	5%	1/6W	
R1314	1-249-429-11	CARBON	10K	5%	1/6W		R1409	1-247-704-11	CARBON	220	5%	1/4W	F
R1315	1-249-435-11	CARBON	33K	5%	1/6W		R1410	1-249-421-11	CARBON	2.2K	5%	1/6W	
R1316	1-249-435-11	CARBON	33K	5%	1/6W		R1411	1-247-725-11	CARBON	10K	5%	1/4W	
R1317	1-249-417-11	CARBON	1K	5%	1/6W		R1412	1-249-429-11	CARBON	10K	5%	1/6W	
R1318	1-249-417-11	CARBON	1K	5%	1/6W		R1413	1-249-421-11	CARBON	2.2K	5%	1/6W	
R1319	1-249-417-11	CARBON	1K	5%	1/6W		VARIABLE RESISTOR						
R1320	1-249-409-11	CARBON	220	5%	1/6W		RV301	1-230-626-41	RES, ADJ, CARBON	470			
R1322	1-249-440-11	CARBON	82K	5%	1/6W		RV302	1-230-631-11	RES, ADJ, CARBON	22K			
R1323	1-249-429-11	CARBON	10K	5%	1/6W		RV303	1-230-630-11	RES, ADJ, CARBON	10K			
R1324	1-247-881-00	CARBON	120K	5%	1/6W		RV318	1-230-271-00	RES, ADJ, CARBON	4.7K			
R1325	1-249-409-11	CARBON	220	5%	1/6W		RV1301	1-230-628-11	RES, ADJ, CARBON	2.2K			
R1326	1-249-409-11	CARBON	220	5%	1/6W		RV1302	1-230-628-11	RES, ADJ, CARBON	2.2K			
R1327	1-215-493-00	CARBON	1M	5%	1/6W		TRANSFORMER						
R1328	1-249-417-11	CARBON	1K	5%	1/6W		T301	1-404-524-11	DAT				
R1329	1-249-437-11	CARBON	47K	5%	1/6W		T401	1-404-584-11	COIL				
R1330	1-249-417-11	CARBON	1K	5%	1/6W		CRYSTAL						
R1331	1-247-849-00	CARBON	5.6K	5%	1/6W		X101	1-567-192-11	OSCILLATOR, CERAMIC				
R1332	1-249-437-11	CARBON	47K	5%	1/6W		X358	1-567-505-11	OSCILLATOR, CRYSTAL				
R1333	1-215-430-00	CARBON	2.4K	5%	1/6W		X443	1-567-504-11	OSCILLATOR, CRYSTAL				
R1334	1-249-429-11	CARBON	10K	5%	1/6W		*****						
R1335	1-249-409-11	CARBON	220	5%	1/6W		*A-1245-395-A	FA BOARD, COMPLETE (AEP,AUS ONLY)					
R1337	1-249-405-11	CARBON	100	5%	1/6W		*****						
R1339	1-249-419-11	CARBON	1.5K	5%	1/6W		*A-1245-414-A	FA BOARD, COMPLETE (WG ONLY)					
R1340	1-249-409-11	CARBON	220	5%	1/6W		*****						
R1341	1-249-437-11	CARBON	47K	5%	1/6W		CAPACITOR						
R1342	1-249-405-11	CARBON	100	5%	1/6W		C601	1-136-360-51	FILM	0.22MF	20%	250V	
R1344	1-247-838-00	CARBON	2K	5%	1/6W		C607	1-161-738-00	CERAMIC	0.0047MF	20%	400V	
R1345	1-249-409-11	CARBON	220	5%	1/6W		C608	1-161-738-12	CERAMIC	0.0047MF	20%	400V	
R1347	1-249-405-11	CARBON	100	5%	1/6W		C610	1-125-222-21	ELECT(BLOCK)	330MF	20%	400V	
R1360	1-249-414-11	CARBON	560	5%	1/6W		C617	1-161-738-00	CERAMIC	0.0047MF	20%	400V	
R1362	1-249-414-11	CARBON	560	5%	1/6W		C618	1-102-030-00	CERAMIC	330PF	10%	500V	
R1363	1-215-491-00	CARBON	820K	5%	1/6W								
R1364	1-249-424-11	CARBON	3.9K	5%	1/6W								
R1365	1-249-437-11	CARBON	47K	5%	1/6W								
R1366	1-249-422-11	CARBON	2.7K	5%	1/6W								

The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.



**FA**

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
C619	1-129-743-00	FILM 0.022MF	10% 400V	<u>FUSE</u>			
C620	1-124-126-00	ELECT 47MF	20% 16V	F601	1-532-299-11	FUSE, TIME-LAG 5A/250V	
C621	1-130-062-00	FILM 0.0056MF	5% 630V		*1-533-189-11	HOLDER, FUSE; F601	
C622	1-124-344-91	ELECT 22MF	20% 100V	<u>CONNECTOR</u>			
C623	1-161-973-00	CERAMIC 220PF	10% 400V	FA1	*1-506-348-XX	3P PLUG (L)	
C624	1-161-973-00	CERAMIC 220PF	10% 400V	FA2	*1-506-348-XX	3P PLUG (L)	
C632	1-102-002-00	CERAMIC 680PF	10% 500V	FA3	*1-508-765-00	3P PLUG (M)	
C651	1-162-115-00	CERAMIC 330PF	10% 2KV	FA4	*1-508-767-00	5P PLUG	
C652	1-125-294-00	ELECT(BLOCK) 560MF	20% 160V	FA6	*1-508-765-00	3P PLUG (M)	
C653	1-123-364-00	ELECT 1000MF	20% 50V	FA7	*1-566-058-11	PIN, CONNECTOR 6P	
C654	1-123-338-00	ELECT 2200MF	20% 25V	FA9	*1-564-529-11	CONNECTOR, BOARD TO BOARD 5P	
C655	1-123-338-00	ELECT 2200MF	20% 25V	FA10	*1-564-529-11	CONNECTOR, BOARD TO BOARD 5P	
C656	1-162-318-11	CERAMIC 0.001MF	10% 500V	<u>IC</u>			
C658	1-124-126-00	ELECT 47MF	20% 25V	IC602	8-719-800-82	DIODE TLP581	
C659	1-102-030-00	CERAMIC 330PF	10% 500V	IC651	8-759-145-58	IC UPC4558C	
C661	1-123-333-00	ELECT 100MF	20% 25V	<u>COIL</u>			
C662	1-136-332-11	FILM 0.01MF	5% 630V	L601	1-407-365-00	COIL, CHOKE	
C663	1-124-038-00	ELECT 1MF	20% 50V	L652	1-407-780-00	COIL, SPOOK CHOKE	
C664	1-124-038-00	ELECT 1MF	20% 50V	<u>IC LINK</u>			
C666	1-124-123-00	ELECT 100MF	20% 10V	PS651	1-532-675-00	LINK, IC	
C667	1-102-121-00	CERAMIC 0.0022MF	10% 50V	PS652	1-532-686-00	LINK, IC	
C668	1-136-360-51	FILM 0.22MF	20% 250V	PS654	1-532-637-00	LINK, IC	
C669	1-161-738-12	CERAMIC 0.0047MF	20% 400V	<u>TRANSISTOR</u>			
C670	1-161-738-12	CERAMIC 0.0047MF	20% 400V	Q601	8-729-195-82	TRANSISTOR 2SC2958	
C671	1-161-738-12	CERAMIC 0.0047MF	20% 400V	Q602	8-729-802-07	TRANSISTOR 2SD1403-CA	
C672	1-161-738-12	CERAMIC 0.0047MF	20% 400V		3-701-833-01	HEAD, WASHER, TAPPING SCREW; Q602	
C673	1-161-738-12	CERAMIC 0.0047MF	20% 400V		4-365-216-00	SPACER, MICA; Q602	
C674	1-136-360-51	FILM 0.22MF	20% 250V	Q651	8-729-109-53	TRANSISTOR 2SD795A	
C677	1-136-173-00	FILM 0.47MF	5% 50V		*4-347-706-00	HEAT SINK (TR); Q651	
C682	1-130-062-00	FILM 0.0056MF	5% 630V	Q652	8-729-178-54	TRANSISTOR 2SC2785	
C686	1-136-173-00	FILM 0.47MF	5% 50V	<u>RESISTOR</u>			
<u>DIODE</u>				R601	1-217-328-11	WIREWOUND 2.7 10% 7W	F
D601	8-719-503-06	DIODE S3WB60Z		R604	1-247-289-11	CARBON 8.2M 5% 1W	
D602	8-719-100-65	DIODE RD12E-B2		R609	1-215-894-11	METAL OXIDE 2.2K 5% 2W	F
D605	8-719-924-06	DIODE ERC24-06S		R612	1-215-904-11	METAL OXIDE 100K 5% 2W	F
D607	8-719-815-55	DIODE 1S1555		R613	1-215-895-11	METAL OXIDE 3.3K 5% 2W	F
D608	8-719-815-55	DIODE 1S1555		R614	1-216-458-11	METAL OXIDE 1.8K 5% 2W	F
D609	8-719-925-06	DIODE ERC25-06S		R615	1-205-737-00	CEMENTED 30 10% 7W	
D651	8-719-900-26	DIODE ERD29-08J		R623	1-247-718-11	CARBON 2.7K 5% 1/4W	
D653	8-719-300-59	DIODE CTU-12S		R627	1-249-409-11	CARBON 220 5% 1/6W	
D654	8-719-300-59	DIODE CTU-12S		R628	1-215-479-00	CARBON 270K 5% 1/6W	
	*4-347-706-00	HEAT SINK (TR); D654		R629	1-249-427-11	CARBON 6.8K 5% 1/6W	
D655	8-719-000-12	DIODE MC931		R630	1-247-692-11	CARBON 22 5% 1/4W	F
D656	8-719-300-59	DIODE CTU-12S		R631	1-217-352-11	WIREWOUND 390 10% 7W	F
	*4-347-706-00	HEAT SINK (TR); D656		R632	1-217-192-00	WIREWOUND 0.22 10% 2W	F
D658	8-719-110-03	DIODE RD7.5ES-B2		R652	1-216-430-11	METAL OXIDE 390 5% 1W	F
D659	8-719-110-03	DIODE RD7.5ES-B2					
D660	8-719-815-55	DIODE 1S1555					
D661	8-719-815-55	DIODE 1S1555					
D663	8-719-109-93	DIODE RD6.2ES-B2					
D664	8-719-100-65	DIODE RD12E-B2					

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Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R653	1-249-425-11	CARBON	4.7K 5% 1/6W			DIODE	
R654	1-216-464-11	METAL OXIDE	18K 5% 2W				
R662	1-249-436-11	CARBON	39K 5% 1/6W	D603	8-719-815-55	DIODE 1S1555	
R663	1-249-430-11	CARBON	12K 5% 1/6W	D604	8-759-157-40	IC UPC574J	
R664	1-249-441-11	CARBON	100K 5% 1/6W	D606	8-719-911-19	DIODE 1SS119	
R665	1-215-436-00	METAL	4.3K 1% 1/6W			CONNECTOR	
R666	1-247-713-11	CARBON	1K 5% 1/4W	FC1	*1-562-516-11	CONNECTOR, BOARD TO BOARD 5P	
R667	1-247-703-11	CARBON	180 5% 1/4W	FC2	*1-562-516-11	CONNECTOR, BOARD TO BOARD 5P	
R669	1-247-720-11	CARBON	3.9K 5% 1/4W			IC	
R670	1-249-421-11	CARBON	2.2K 5% 1/6W	IC601	8-759-100-75	IC UPC1394C	
R671	△ 1-205-758-11	CEMENTED	100 10% 10W			TRANSISTOR	
R673	△ 1-244-945-91	CARBON	1M 5% 1/2W	Q603	8-729-178-54	TRANSISTOR 2SC2785	
R676	1-205-758-11	CEMENTED	100 10% 10W			RESISTOR	
R677	1-216-346-00	METAL OXIDE	0.56 5% 1W	R605	1-247-891-00	CARBON	330K 5% 1/6W
R678	1-247-749-11	CARBON	560 5% 1/2W	R606	1-249-433-11	CARBON	22K 5% 1/6W
R679	1-215-924-00	METAL OXIDE	15K 5% 3W	R608	1-249-421-11	CARBON	2.2K 5% 1/6W
R680	1-217-353-11	WIREWOUND	470 10% 7W	R611	1-215-457-00	METAL	33K 1% 1/6W
R681	1-246-403-75	CARBON	1.2 5% 1/4W	R616	1-215-452-00	CARBON	20K 5% 1/6W
R683	1-216-488-11	METAL OXIDE	18K 5% 3W	R621	1-249-429-11	CARBON	10K 5% 1/6W
R684	1-246-403-75	CARBON	1.2 5% 1/4W	R622	1-249-433-11	CARBON	22K 5% 1/6W
VARIABLE RESISTOR				R624	1-249-425-11	CARBON	4.7K 5% 1/6W
RV651	1-230-230-00	RES, ADJ, CERAMIC CARBON 1K		R625	1-249-441-11	CARBON	100K 5% 1/6W
RV652	1-226-702-00	RES, ADJ, METAL GLAZE 2.2K		R626	1-247-712-11	CARBON	820 5% 1/4W
TRANSFORMER				R633	1-247-887-00	CARBON	220K 5% 1/6W
T601	△ 1-421-758-11	TRANSFORMER, LINE FILTER (LFT)	(AEP,AUS ONLY)	R634	1-249-437-11	CARBON	47K 5% 1/6W
	△ 1-421-974-11	TRANSFORMER, LINE FILTER (WG ONLY)		R636	1-215-471-00	METAL	120K 1% 1/6W
T602	△ 1-421-758-11	TRANSFORMER, LINE FILTER (LFT)	(AEP,AUS ONLY)	R637	1-249-433-11	CARBON	22K 5% 1/6W
	△ 1-421-974-11	TRANSFORMER, LINE FILTER (WG ONLY)		R638	1-215-435-00	METAL	3.9K 1% 1/6W
T603	△ 1-437-079-11	TRANSFORMER, HORIZONTAL DRIVE		R639	1-249-425-11	CARBON	4.7K 5% 1/6W
T605	△ 1-448-931-11	SRT		R674	1-249-440-11	CARBON	82K 5% 1/6W
T607	1-421-975-11	TRANSFORMER, LINE FILTER (WG ONLY)		THERMISTOR			
THERMISTOR				TH601	△ 1-800-944-11	THERMISTOR TH-4700	
TH651	1-800-944-00	THERMISTOR TH-4700		*****			
THP601	△ 1-806-387-11	THERMISTOR (POSITIVE)		*A-1270-212-A	QA BOARD, COMPLETE (AEP,AUS ONLY)		
THP602	△ 1-806-387-11	THERMISTOR (POSITIVE)			*****		
*****				*A-1270-223-A	QA BOARD, COMPLETE (WG ONLY)		
*1-621-548-11	FC BOARD		*****		*****		
3-670-570-41	SPACER, SUPPORT			1-537-075-11	TERMINAL BOARD, INPUT/OUTPUT		
CAPACITOR				1-537-076-11	TERMINAL BOARD, INPUT/OUTPUT		
C611	1-106-220-00	MYLAR	0.1MF 10% 100V	CAPACITOR			
C612	1-106-351-00	MYLAR	0.0022MF 5% 50V	C1700	1-124-236-00	ELECT	47MF 20% 16V
C613	1-123-356-00	ELECT	10MF 20% 16V	C1701	1-124-247-00	ELECT	10MF 20% 25V
C614	1-123-875-91	ELECT	10MF 20% 50V	C1702	1-124-247-00	ELECT	10MF 20% 25V
C615	1-102-074-00	CERAMIC	0.001MF 10% 50V	C1703	1-124-236-00	ELECT	47MF 20% 16V
C616	1-123-875-91	ELECT	10MF 20% 50V	C1704	1-124-247-00	ELECT	10MF 20% 25V
C625	1-123-380-00	ELECT	1MF 20% 50V	C1705	1-124-247-00	ELECT	10MF 20% 25V
C627	1-136-153-00	FILM	0.01MF 5% 50V				
C628	1-102-820-00	CERAMIC	330PF 5% 50V				
C634	1-106-220-00	MYLAR	0.1MF 10% 100V				

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QA QB

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
<u>SWITCH</u>				<u>DIODE</u>			
SW1	1-570-145-11	SWITCH, SLIDE		D1770	8-719-911-19	DIODE 1SS119	
SW2	1-570-145-11	SWITCH, SLIDE		D1771	8-719-911-19	DIODE 1SS119	
SW3	1-570-145-11	SWITCH, SLIDE		D1772	8-719-911-19	DIODE 1SS119	
SW4	1-570-145-11	SWITCH, SLIDE		D1773	8-719-911-19	DIODE 1SS119	
SW5	1-570-145-11	SWITCH, SLIDE		D1774	8-719-911-19	DIODE 1SS119	
*****				D1775	8-719-911-19	DIODE 1SS119	
*A-1270-213-A QB BOARD, COMPLETE				D1776	8-719-911-19	DIODE 1SS119	
*****				D1777	8-719-911-19	DIODE 1SS119	
*****				D1780	8-719-911-19	DIODE 1SS119	
<u>CAPACITOR</u>				D1781	8-719-911-19	DIODE 1SS119	
C1777	1-102-074-00	CERAMIC	0.001MF	10%	50V	D1782	8-719-911-19
C1778	1-102-074-00	CERAMIC	0.001MF	10%	50V	D1783	8-719-931-06
C1779	1-124-475-11	ELECT	470MF	20%	16V	D1784	8-719-110-14
C1781	1-101-004-00	CERAMIC	0.01MF		50V	D1787	8-719-109-90
C1788	1-124-247-00	ELECT	10MF	20%	25V	D1788	8-719-911-19
C1789	1-124-247-00	ELECT	10MF	20%	25V	D1789	8-719-911-19
C1790	1-124-236-00	ELECT	47MF	20%	16V		
C1791	1-124-236-00	ELECT	47MF	20%	16V	<u>IC</u>	
C1792	1-102-959-00	CERAMIC	22PF	5%	50V	IC1770	8-759-800-65
C1793	1-101-004-00	CERAMIC	0.01MF		50V	IC1771	8-759-140-66
C1794	1-124-236-00	ELECT	47MF	20%	16V	IC1772	8-759-102-37
C1795	1-101-004-00	CERAMIC	0.01MF		50V	IC1773	8-759-102-37
C1799	1-124-471-00	ELECT	1000MF	20%	6.3V	IC1774	8-759-900-86
C1800	1-124-236-00	ELECT	47MF	20%	16V	IC1775	8-759-901-38
C1801	1-124-475-11	ELECT	470MF	20%	16V	IC1776	8-759-900-09
C1802	1-102-971-00	CERAMIC	82PF	5%	50V	<u>COIL</u>	
C1803	1-124-471-00	ELECT	1000MF	20%	6.3V	L1770	1-408-239-00
C1804	1-102-971-00	CERAMIC	82PF	5%	50V	<u>TRANSISTOR</u>	
C1806	1-101-361-00	CERAMIC	150PF	5%	50V	Q1773	8-729-117-54
C1807	1-102-111-00	CERAMIC	270PF	10%	50V	Q1774	8-729-178-54
C1808	1-101-004-00	CERAMIC	0.01MF		50V	Q1775	8-729-117-54
C1810	1-124-236-00	ELECT	47MF	20%	16V	Q1776	8-729-178-54
C1811	1-124-236-00	ELECT	47MF	20%	16V	Q1777	8-729-178-54
C1813	1-124-236-00	ELECT	47MF	20%	16V	Q1778	8-729-178-54
C1820	1-124-236-00	ELECT	47MF	20%	16V	Q1779	8-729-117-54
C1821	1-101-004-00	CERAMIC	0.01MF		50V	Q1780	8-729-117-54
C1823	1-124-267-11	ELECT	0.1MF	20%	50V	Q1781	8-729-178-54
C1824	1-124-267-11	ELECT	0.1MF	20%	50V	Q1784	8-729-900-89
C1825	1-124-267-11	ELECT	0.1MF	20%	50V	Q1785	8-729-178-54
C1827	1-101-880-00	CERAMIC	47PF	5%	50V	Q1786	8-729-178-54
C1828	1-123-611-00	ELECT	1MF	20%	50V	Q1787	8-729-177-43
C1830	1-124-236-00	ELECT	47MF	20%	16V	Q1788	8-729-117-54
C1831	1-101-004-00	CERAMIC	0.01MF		50V	Q1789	8-729-178-54
C1832	1-124-236-00	ELECT	47MF	20%	16V	Q1790	8-729-177-43
C1833	1-101-004-00	CERAMIC	0.01MF		50V	Q1791	8-729-900-36
C1834	1-101-004-00	CERAMIC	0.01MF		50V	Q1792	8-729-178-54
C1835	1-124-236-00	ELECT	47MF	20%	16V	Q1793	8-729-117-54
C1837	1-124-963-11	ELECT	33MF	20%	16V	Q1794	8-729-178-54
C1838	1-101-880-00	CERAMIC	47PF	5%	50V	Q1795	8-729-178-54
C1839	1-124-236-00	ELECT	47MF	20%	16V	Q1796	8-729-178-54
C1840	1-101-004-00	CERAMIC	0.01MF		50V	Q1797	8-729-178-54



**QB**

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
Q1798	8-729-117-54	TRANSISTOR 2SA1175		R1785	1-249-441-11	CARBON 100K 5%	1/6W
Q1799	8-729-178-54	TRANSISTOR 2SC2785		R1786	1-249-441-11	CARBON 100K 5%	1/6W
Q1802	8-729-900-36	TRANSISTOR DTC124ES		R1787	1-249-433-11	CARBON 22K 5%	1/6W
Q1803	8-729-178-54	TRANSISTOR 2SC2785		R1788	1-249-413-11	CARBON 470 5%	1/6W
Q1804	8-729-178-54	TRANSISTOR 2SC2785		R1794	1-247-895-00	CARBON 470K 5%	1/6W
Q1805	8-729-178-54	TRANSISTOR 2SC2785		R1795	1-249-422-11	CARBON 2.7K 5%	1/6W
Q1806	8-729-178-54	TRANSISTOR 2SC2785		R1796	1-249-440-11	CARBON 82K 5%	1/6W
Q1807	8-729-178-54	TRANSISTOR 2SC2785		R1797	1-249-434-11	CARBON 27K 5%	1/6W
Q1808	8-729-178-54	TRANSISTOR 2SC2785		R1798	1-249-425-11	CARBON 4.7K 5%	1/6W
Q1809	8-729-178-54	TRANSISTOR 2SC2785		R1799	1-249-419-11	CARBON 1.5K 5%	1/6W
Q1810	8-729-178-54	TRANSISTOR 2SC2785		R1800	1-249-425-11	CARBON 4.7K 5%	1/6W
Q1811	8-729-178-54	TRANSISTOR 2SC2785		R1801	1-249-440-11	CARBON 82K 5%	1/6W
Q1812	8-729-178-54	TRANSISTOR 2SC2785		R1802	1-249-434-11	CARBON 27K 5%	1/6W
Q1813	8-729-178-54	TRANSISTOR 2SC2785		R1804	1-249-429-11	CARBON 10K 5%	1/6W
Q1814	8-729-178-54	TRANSISTOR 2SC2785		R1805	1-249-429-11	CARBON 10K 5%	1/6W
Q1815	8-729-178-54	TRANSISTOR 2SC2785		R1806	1-249-406-11	CARBON 120 5%	1/6W
Q1816	8-729-178-54	TRANSISTOR 2SC2785		R1807	1-247-849-00	CARBON 5.6K 5%	1/6W
Q1817	8-729-178-54	TRANSISTOR 2SC2785		R1808	1-247-849-00	CARBON 5.6K 5%	1/6W
Q1818	8-729-900-36	TRANSISTOR DTC124ES		R1809	1-249-408-11	CARBON 180 5%	1/6W
Q1819	8-729-900-36	TRANSISTOR DTC124ES		R1810	1-215-422-00	CARBON 1.1K 5%	1/6W
Q1820	8-729-900-36	TRANSISTOR DTC124ES		R1811	1-249-413-11	CARBON 470 5%	1/6W
Q1822	8-729-178-54	TRANSISTOR 2SC2785		R1813	1-249-413-11	CARBON 470 5%	1/6W
Q1823	8-729-178-54	TRANSISTOR 2SC2785		R1814	1-249-413-11	CARBON 470 5%	1/6W
Q1825	8-729-178-54	TRANSISTOR 2SC2785		R1815	1-249-412-11	CARBON 390 5%	1/6W
Q1826	8-729-178-54	TRANSISTOR 2SC2785		R1816	1-249-413-11	CARBON 470 5%	1/6W
Q1827	8-729-178-54	TRANSISTOR 2SC2785		R1817	1-215-422-00	CARBON 1.1K 5%	1/6W
Q1828	8-729-178-54	TRANSISTOR 2SC2785		R1819	1-249-413-11	CARBON 470 5%	1/6W
Q1829	8-729-178-54	TRANSISTOR 2SC2785		R1820	1-249-406-11	CARBON 120 5%	1/6W
Q1830	8-729-177-43	TRANSISTOR 2SD774		R1821	1-249-406-11	CARBON 120 5%	1/6W
Q1831	8-729-900-36	TRANSISTOR DTC124ES		R1822	1-249-406-11	CARBON 120 5%	1/6W
Q1832	8-729-178-54	TRANSISTOR 2SC2785		R1823	1-249-406-11	CARBON 120 5%	1/6W
Q1891	8-729-900-36	TRANSISTOR DTC124ES		R1824	1-247-881-00	CARBON 120K 5%	1/6W
<u>CONNECTOR</u>				R1825	1-247-881-00	CARBON 120K 5%	1/6W
QB11	*1-566-058-11	PIN, CONNECTOR 6P		R1826	1-247-881-00	CARBON 120K 5%	1/6W
QB12	*1-566-056-11	PIN, CONNECTOR 4P		R1827	1-249-429-11	CARBON 10K 5%	1/6W
QB13	*1-566-056-11	PIN, CONNECTOR 4P		R1828	1-249-417-11	CARBON 1K 5%	1/6W
QB14	*1-566-054-11	PIN, CONNECTOR 2P		R1829	1-249-429-11	CARBON 10K 5%	1/6W
QB15	*1-566-057-11	PIN, CONNECTOR 5P		R1830	1-249-429-11	CARBON 10K 5%	1/6W
QB16	*1-566-056-11	PIN, CONNECTOR 4P		R1831	1-249-417-11	CARBON 1K 5%	1/6W
QB17	*1-566-059-11	PIN, CONNECTOR 7P		R1832	1-249-429-11	CARBON 10K 5%	1/6W
<u>RESISTOR</u>				R1833	1-249-429-11	CARBON 10K 5%	1/6W
R1771	1-249-469-11	CARBON 100K 5%	1/4W	R1834	1-249-417-11	CARBON 1K 5%	1/6W
R1776	1-249-405-11	CARBON 100 5%	1/6W	R1835	1-249-428-11	CARBON 8.2K 5%	1/6W
R1777	1-249-405-11	CARBON 100 5%	1/6W	R1836	1-249-422-11	CARBON 2.7K 5%	1/6W
R1778	1-249-405-11	CARBON 100 5%	1/6W	R1837	1-249-417-11	CARBON 1K 5%	1/6W
R1779	1-249-441-11	CARBON 100K 5%	1/6W	R1838	1-247-849-00	CARBON 5.6K 5%	1/6W
R1780	1-249-433-11	CARBON 22K 5%	1/6W	R1839	1-247-849-00	CARBON 5.6K 5%	1/6W
R1781	1-249-441-11	CARBON 100K 5%	1/6W	R1841	1-249-433-11	CARBON 22K 5%	1/6W
R1782	1-249-425-11	CARBON 4.7K 5%	1/6W	R1842	1-249-433-11	CARBON 22K 5%	1/6W
R1783	1-249-469-11	CARBON 100K 5%	1/4W	R1843	1-249-462-11	CARBON 22K 5%	1/4W
R1784	1-249-433-11	CARBON 22K 5%	1/6W	R1844	1-249-405-11	CARBON 100 5%	1/6W
				R1845	1-249-433-11	CARBON 22K 5%	1/6W
				R1846	1-247-714-11	CARBON 1.2K 5%	1/4W

QB C

Ref.No.	Part No.	Description				Remark	Ref.No.	Part No.	Description				Remark
R1847	1-249-437-11	CARBON	47K	5%	1/6W		R1923	1-249-421-11	CARBON	2.2K	5%	1/6W	
R1848	1-249-428-11	CARBON	8.2K	5%	1/6W		R1925	1-249-440-11	CARBON	82K	5%	1/6W	
R1849	1-249-437-11	CARBON	47K	5%	1/6W		R1926	1-249-440-11	CARBON	82K	5%	1/6W	
R1850	1-249-428-11	CARBON	8.2K	5%	1/6W		R1927	1-249-440-11	CARBON	82K	5%	1/6W	
R1851	1-249-465-11	CARBON	47K	5%	1/4W		R1928	1-249-405-11	CARBON	100	5%	1/6W	
R1852	1-249-428-11	CARBON	8.2K	5%	1/6W		R1929	1-247-849-00	CARBON	5.6K	5%	1/6W	
R1853	1-249-416-11	CARBON	820	5%	1/6W		R1930	1-247-714-11	CARBON	1.2K	5%	1/4W	
R1854	1-249-416-11	CARBON	820	5%	1/6W		R1931	1-249-417-11	CARBON	1K	5%	1/6W	
R1855	1-249-417-11	CARBON	1K	5%	1/6W		R1932	1-249-417-11	CARBON	1K	5%	1/6W	
R1856	1-249-417-11	CARBON	1K	5%	1/6W		R1935	1-249-428-11	CARBON	8.2K	5%	1/6W	
R1857	1-247-713-11	CARBON	1K	5%	1/4W		R1936	1-249-430-11	CARBON	12K	5%	1/6W	
R1858	1-249-433-11	CARBON	22K	5%	1/6W		R1937	1-249-428-11	CARBON	8.2K	5%	1/6W	
R1859	1-249-417-11	CARBON	1K	5%	1/6W		R1938	1-249-428-11	CARBON	8.2K	5%	1/6W	
R1860	1-249-429-11	CARBON	10K	5%	1/6W		R1939	1-249-428-11	CARBON	8.2K	5%	1/6W	
R1861	1-249-417-11	CARBON	1K	5%	1/6W		R1940	1-249-428-11	CARBON	8.2K	5%	1/6W	
R1862	1-249-417-11	CARBON	1K	5%	1/6W		R1941	1-249-428-11	CARBON	8.2K	5%	1/6W	
R1863	1-249-433-11	CARBON	22K	5%	1/6W		R1942	1-247-695-11	CARBON	39	5%	1/4W	
R1864	1-249-417-11	CARBON	1K	5%	1/6W		R1945	1-249-428-11	CARBON	8.2K	5%	1/6W	
R1865	1-249-425-11	CARBON	4.7K	5%	1/6W		R1950	1-249-428-11	CARBON	8.2K	5%	1/6W	
R1866	1-249-412-11	CARBON	390	5%	1/6W		R1951	1-249-429-11	CARBON	10K	5%	1/6W	
R1867	1-249-417-11	CARBON	1K	5%	1/6W		R1952	1-215-865-11	METAL OXIDE	220	5%	1W	F
R1868	1-249-412-11	CARBON	390	5%	1/6W		R1953	1-249-423-11	CARBON	3.3K	5%	1/6W	
R1869	1-249-421-11	CARBON	2.2K	5%	1/6W		R1955	1-249-435-11	CARBON	33K	5%	1/6W	
R1870	1-249-421-11	CARBON	2.2K	5%	1/6W		R1956	1-249-434-11	CARBON	27K	5%	1/6W	
R1871	1-249-421-11	CARBON	2.2K	5%	1/6W		R1965	1-247-712-11	CARBON	820	5%	1/4W	
R1872	1-249-433-11	CARBON	22K	5%	1/6W		R1966	1-247-712-11	CARBON	820	5%	1/4W	
R1873	1-249-429-11	CARBON	10K	5%	1/6W		R1967	1-247-712-11	CARBON	820	5%	1/4W	
R1874	1-249-413-11	CARBON	470	5%	1/6W		R1968	1-247-881-00	CARBON	120K	5%	1/6W	
R1875	1-215-432-00	CARBON	3K	5%	1/6W		R1969	1-249-440-11	CARBON	82K	5%	1/6W	
R1876	1-249-420-11	CARBON	1.8K	5%	1/6W		R1971	1-249-417-11	CARBON	1K	5%	1/6W	
R1877	1-249-429-11	CARBON	10K	5%	1/6W		R1972	1-249-417-11	CARBON	1K	5%	1/6W	
R1879	1-249-469-11	CARBON	100K	5%	1/4W		R1973	1-249-417-11	CARBON	1K	5%	1/6W	
R1880	1-249-417-11	CARBON	1K	5%	1/6W		R1974	1-247-713-11	CARBON	1K	5%	1/4W	
R1881	1-249-422-11	CARBON	2.7K	5%	1/6W		*****						
R1882	1-249-417-11	CARBON	1K	5%	1/6W		*****						
R1883	1-249-433-11	CARBON	22K	5%	1/6W		*****						
R1884	1-249-417-11	CARBON	1K	5%	1/6W		*****						
R1885	1-249-416-11	CARBON	820	5%	1/6W		*****						
R1886	1-249-417-11	CARBON	1K	5%	1/6W		*****						
R1887	1-247-715-11	CARBON	1.5K	5%	1/4W		*****						
R1888	1-249-417-11	CARBON	1K	5%	1/6W		*****						
R1892	1-249-415-11	CARBON	680	5%	1/6W		*****						
R1893	1-249-433-11	CARBON	22K	5%	1/6W		*****						
R1894	1-249-428-11	CARBON	8.2K	5%	1/6W		*****						
R1896	1-249-415-11	CARBON	680	5%	1/6W		*****						
R1898	1-247-849-00	CARBON	5.6K	5%	1/6W		*****						
R1899	1-247-849-00	CARBON	5.6K	5%	1/6W		*****						
R1901	1-249-429-11	CARBON	10K	5%	1/6W		*****						
R1902	1-249-417-11	CARBON	1K	5%	1/6W		*****						
R1903	1-249-412-11	CARBON	390	5%	1/6W		*****						
R1921	1-249-424-11	CARBON	3.9K	5%	1/6W		*****						
R1922	1-249-424-11	CARBON	3.9K	5%	1/6W		*****						
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**C**

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
C706	1-129-751-00	FILM 0.1MF	10% 400V	<b>RESISTOR</b>			
C707	1-102-116-00	CERAMIC 680PF	10% 50V	R701	1-216-397-11	METAL OXIDE 4.7 5% 3W	F
C708	1-102-116-00	CERAMIC 680PF	10% 50V	R702	1-202-848-00	SOL ID 680K 10% 1/2W	
C709	1-102-116-00	CERAMIC 680PF	10% 50V	R703	1-202-838-00	SOL ID 100K 10% 1/2W	
C710	1-102-116-00	CERAMIC 680PF	10% 50V	R704	1-202-846-00	SOL ID 470K 10% 1/2W	
C711	1-123-356-00	ELECT 10MF	20% 25V	R705	1-202-549-00	SOL ID 100 5% 1/2W	
C712	1-102-114-00	CERAMIC 470PF	10% 50V	R706	1-202-838-00	SOL ID 100K 10% 1/2W	
C713	1-102-116-00	CERAMIC 680PF	10% 50V	R707	1-202-842-11	SOL ID 220K 10% 1/2W	
C714	1-162-622-11	CERAMIC 330PF	10% 6.3KV	R708	1-202-818-00	SOL ID 1K 1/2W	
C715	1-102-125-00	CERAMIC 0.0047MF	10% 50V	R709	1-202-818-00	SOL ID 1K 1/2W	
C718	1-102-074-00	CERAMIC 0.001MF	10% 50V	R710	1-202-818-00	SOL ID 1K 1/2W	
C719	1-102-050-00	CERAMIC 0.01MF	500V	R711	1-202-837-00	SOL ID 82K 10% 1/2W	
<b>DIODE</b>				R712	1-202-842-11	SOL ID 220K 10% 1/2W	
D701	8-719-911-19	DIODE 1SS119		R713	1-216-486-00	METAL OXIDE 8.2K 5% 3W	F
D702	8-719-911-19	DIODE 1SS119		R714	1-249-409-11	CARBON 220 5% 1/6W	
D703	8-719-911-19	DIODE 1SS119		R716	1-216-486-00	METAL OXIDE 8.2K 5% 3W	F
D704	8-719-911-19	DIODE 1SS119		R717	1-249-409-11	CARBON 220 5% 1/6W	
D705	8-719-911-19	DIODE 1SS119		R720	1-216-486-00	METAL OXIDE 8.2K 5% 3W	F
D706	8-719-911-19	DIODE 1SS119		R721	1-249-409-11	CARBON 220 5% 1/6W	
D707	8-719-911-19	DIODE 1SS119		R722	1-249-405-11	CARBON 100 5% 1/6W	
D708	8-719-911-19	DIODE 1SS119		R723	1-249-405-11	CARBON 100 5% 1/6W	
D709	8-719-911-19	DIODE 1SS119		R724	1-249-405-11	CARBON 100 5% 1/6W	
D710	8-719-901-83	DIODE 1SS83		R725	1-249-429-11	CARBON 10K 5% 1/6W	
D711	8-719-901-83	DIODE 1SS83		R726	1-249-409-11	CARBON 220 5% 1/6W	
D712	8-719-901-83	DIODE 1SS83		R727	1-249-429-11	CARBON 10K 5% 1/6W	
D713	8-719-901-83	DIODE 1SS83		R728	1-215-404-00	CARBON 200 5% 1/6W	
<b>COIL</b>				R729	1-249-385-11	CARBON 2.2 5% 1/6W	
L701	1-407-711-00	MICRO INDUCTOR 330UH		R730	1-249-408-11	CARBON 180 5% 1/6W	
L702	1-407-705-00	MICRO INDUCTOR 100UH		R731	1-247-704-11	CARBON 220 5% 1/4W	F
L703	1-407-703-00	MICRO INDUCTOR 68UH		R732	1-247-704-11	CARBON 220 5% 1/4W	F
L704	1-408-442-11	MICRO INDUCTOR 10UH		R733	1-247-704-11	CARBON 220 5% 1/4W	F
L705	1-408-404-00	MICRO INDUCTOR 3.9UH		R734	1-247-717-11	CARBON 2.2K 5% 1/4W	
L706	1-407-705-00	MICRO INDUCTOR 100UH		R735	1-247-138-00	CARBON 2K 5% 1/4W	
L707	1-408-434-00	MICRO INDUCTOR 2.2UH		R736	1-247-717-11	CARBON 2.2K 5% 1/4W	
<b>TRANSISTOR</b>				R737	1-249-441-11	CARBON 100K 5% 1/6W	
Q701	8-729-326-11	TRANSISTOR 2SC2611		R739	1-247-887-00	CARBON 220K 5% 1/6W	
Q702	8-729-178-54	TRANSISTOR 2SC2785		R740	1-215-902-11	METAL OXIDE 47K 5% 2W	F
Q703	8-729-200-17	TRANSISTOR 2SA1091		R741	1-249-438-11	CARBON 56K 5% 1/6W	
Q704	8-729-326-11	TRANSISTOR 2SC2611		R742	1-249-429-11	CARBON 10K 5% 1/6W	F
Q705	8-729-178-54	TRANSISTOR 2SC2785		R743	1-249-429-11	CARBON 10K 5% 1/6W	F
Q706	8-729-200-17	TRANSISTOR 2SA1091		R744	1-247-725-11	CARBON 10K 5% 1/4W	F
Q707	8-729-200-17	TRANSISTOR 2SA1091		R745	1-247-713-11	CARBON 1K 5% 1/4W	F
Q708	8-729-326-11	TRANSISTOR 2SC2611		R746	1-215-879-51	METAL OXIDE 47K 5% 1W	F
Q709	8-729-178-54	TRANSISTOR 2SC2785		R747	1-247-725-11	CARBON 10K 5% 1/4W	F
Q710	8-729-255-12	TRANSISTOR 2SC2551		R775	1-247-779-00	CARBON 6.8 5% 1/6W	
Q712	8-729-255-12	TRANSISTOR 2SC2551		R776	1-247-779-00	CARBON 6.8 5% 1/6W	
Q714	8-729-200-17	TRANSISTOR 2SA1091		R777	1-249-441-11	CARBON 100K 5% 1/6W	
Q715	8-729-200-17	TRANSISTOR 2SA1091		R799	1-202-842-11	SOL ID 220K 1/2W	
Q716	8-729-200-17	TRANSISTOR 2SA1091		<b>VARIABLE RESISTOR</b>			
				RV701	1-226-114-00	RES, ADJ, METAL GLAZE 2.2M	
				RV702	1-230-619-11	RES, ADJ, METAL GLAZE 110M	



Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
RV703	1-228-731-00	RES, ADJ, CERAMIC CARBON 470K		C564	1-102-244-00	CERAMIC 220PF 10% 500V	
RV705	1-228-729-00	RES, ADJ, CERAMIC CARBON 220K		C566	1-106-367-00	MYLAR 0.01MF 10% 100V	
RV706	1-228-724-00	RES, ADJ, CERAMIC CARBON 10K		C568	1-106-212-00	MYLAR 0.047MF 10% 100V	
*****				C570	1-102-212-00	CERAMIC 820PF 10% 500V	
*****				C571	1-123-349-00	ELECT 1000MF 20% 35V	
*A-1345-708-A D BOARD, COMPLETE				C572	1-102-244-00	CERAMIC 220PF 10% 500V	
*****				C573	1-123-935-00	ELECT 33MF 20% 160V	
CAPACITOR				C574	1-106-369-00	MYLAR 0.012MF 10% 200V	
C503	1-108-614-91	MYLAR 0.001MF 10% 100V		C575	1-123-024-00	ELECT 33MF 160V	
C505	1-106-212-00	MYLAR 0.047MF 10% 100V		C576	1-162-114-00	CERAMIC 0.0047MF 2KV	
C506	1-124-902-00	ELECT 0.47MF 20% 50V		C578	1-124-902-00	ELECT 0.47MF 20% 50V	
C507	1-123-369-00	ELECT 4.7MF 20% 25V		C579	1-102-030-00	CERAMIC 330PF 10% 500V	
C508	1-108-627-91	MYLAR 0.012MF 10% 100V		C580	1-108-689-11	MYLAR 0.0056MF 10% 200V	
C509	1-106-220-00	MYLAR 0.1MF 10% 100V		C581	1-136-512-11	FILM 0.0106MF 3% 1.4KV	
C510	1-106-367-00	MYLAR 0.01MF 10% 100V		C582	1-162-135-11	CERAMIC 560PF 10% 2KV	
C511	1-123-330-00	ELECT 22MF 20% 16V		C583	1-106-367-00	MYLAR 0.01MF 10% 100V	
C512	1-124-927-11	ELECT 4.7MF 20% 50V		C586	1-162-115-00	CERAMIC 330PF 10% 2KV	
C513	1-130-868-00	FILM 0.0056MF 5% 50V		C587	1-129-747-00	FILM 0.047MF 10% 400V	
C514	1-123-356-00	ELECT 10MF 20% 16V		C588	1-136-513-11	FILM 0.82MF 5% 200V	
C515	1-123-356-00	ELECT 10MF 20% 16V		C589	1-136-116-00	FILM 1MF 5% 200V	
C516	1-102-820-00	CERAMIC 330PF 5% 50V		C590	1-123-356-00	ELECT 10MF 20% 25V	
C517	1-124-475-11	ELECT 470MF 20% 16V		C593	1-124-555-00	ELECT 1000MF 20% 16V	
C518	1-106-371-00	MYLAR 0.015MF 10% 100V		C598	1-123-332-00	ELECT 47MF 20% 16V	
C519	1-136-173-00	FILM 0.47MF 5% 50V		C1510	1-106-367-00	MYLAR 0.01MF 10% 100V	
C520	1-124-902-00	ELECT 0.47MF 20% 50V		C1515	1-124-477-11	ELECT 47MF 20% 25V	
C521	1-124-902-00	ELECT 0.47MF 20% 50V		C1516	1-124-927-11	ELECT 4.7MF 20% 50V	
C522	1-124-791-11	ELECT 1MF 20% 50V		C1517	1-124-902-00	ELECT 0.47MF 20% 50V	
C523	1-106-367-00	MYLAR 0.01MF 10% 100V		C1518	1-108-630-91	MYLAR 0.022MF 10% 100V	
C524	1-108-622-91	MYLAR 0.0047MF 10% 100V		C1519	1-124-791-11	ELECT 1MF 20% 50V	
C525	1-108-425-00	MYLAR 0.022MF 10% 200V		C1520	1-123-875-91	ELECT 10MF 20% 50V	
C526	1-123-321-00	ELECT 220MF 20% 16V		C1521	1-108-855-00	MYLAR 0.33MF 10% 50V	
C531	1-123-356-00	ELECT 10MF 20% 50V		C1522	1-108-837-00	MYLAR 0.01MF 10% 50V	
C532	1-124-005-11	ELECT 4.7MF 20% 50V		C1524	1-106-172-00	MYLAR 0.001MF 5% 50V	
C535	1-131-501-00	TANTALUM 3.3MF 10% 10V		C1525	1-124-927-11	ELECT 4.7MF 20% 50V	
C536	1-131-375-00	TANTALUM 4.7MF 10% 6.3V		C1526	1-102-971-00	CERAMIC 82PF 5% 50V	
C537	1-123-875-91	ELECT 10MF 20% 50V		C1527	1-123-356-00	ELECT 10MF 20% 50V	
C538	1-124-117-00	ELECT 680MF 10% 25V		C1528	1-123-356-00	ELECT 10MF 20% 50V	
C542	1-123-356-00	ELECT 10MF 20% 16V		C1529	1-124-791-11	ELECT 1MF 20% 50V	
C544	1-130-996-00	FILM 0.047MF 5% 50V		C1531	1-102-231-11	CERAMIC 47PF 10% 500V	
C546	1-124-477-11	ELECT 47MF 20% 25V		C1532	1-124-445-00	ELECT 100MF 20% 16V	
C551	1-108-630-91	MYLAR 0.022MF 10% 100V		C1537	1-108-845-00	MYLAR 0.047MF 10% 50V	
C552	1-102-030-00	CERAMIC 330PF 10% 500V		CONNECTOR			
C553	1-106-192-00	MYLAR 0.0068MF 10% 100V		D1	*1-508-766-00	4P PLUG (M)	
C554	1-123-345-00	ELECT 100MF 20% 35V		D2	*1-566-055-11	PIN, CONNECTOR 3P	
C556	1-123-943-00	ELECT 1MF 20% 250V		D3	*1-566-054-11	PIN, CONNECTOR 2P	
C557	1-123-356-00	ELECT 10MF 20% 25V		D4	*1-508-767-00	5P PLUG	
C558	1-123-356-00	ELECT 10MF 20% 16V		D5	*1-508-765-00	3P PLUG (M)	
C559	1-124-192-00	ELECT 4.7MF 20% 50V		D6	*1-564-038-00	CONNECTOR PLUG, DY (MINI) 6P	
C560	1-106-208-00	MYLAR 0.033MF 10% 100V		D7	*1-566-056-11	PIN, CONNECTOR 4P	
C561	1-108-614-91	MYLAR 0.001MF 10% 100V		D9	*1-566-055-11	PIN, CONNECTOR 3P	
C562	1-108-616-91	MYLAR 0.0015MF 10% 100V		D10	*1-508-766-00	4P PLUG (M)	
C563	1-123-943-00	ELECT 1MF 20% 250V		D11	*1-508-765-00	3P PLUG (M)	



**D**

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
D14	*1-566-054-11	PIN, CONNECTOR 2P		L564	1-407-717-00	MICRO INDUCTOR 1MMH	
		<u>DIODE</u>		L1510	1-459-115-00	COIL, DCC-H	
D501	8-719-911-19	DIODE 1SS119				<u>NEON LAMP</u>	
D502	8-719-911-55	DIODE U05G		NL601	1-519-237-11	LAMP, NEON	
D504	8-719-911-19	DIODE 1SS119				<u>TRANSISTOR</u>	
D505	8-719-911-19	DIODE 1SS119		Q505	8-729-178-54	TRANSISTOR 2SC2785	
D507	8-719-100-35	DIODE RD5.6E-B2		Q506	8-729-178-54	TRANSISTOR 2SC2785	
D509	8-719-110-06	DIODE RD8.2ES-B1		Q507	8-729-178-54	TRANSISTOR 2SC2785	
D510	8-719-911-19	DIODE 1SS119		Q508	8-729-117-54	TRANSISTOR 2SA1175	
D551	8-719-911-55	DIODE U05G		Q551	8-729-168-82	TRANSISTOR 2SC2688	
D554	8-719-300-65	DIODE ES1F					
D557	8-719-918-77	DIODE V19G		Q552	8-729-203-80	TRANSISTOR 2SD1555-LB-S1	
D558	8-719-300-76	DIODE RH1A			4-367-513-00	SPACER, MICA; Q552	
D560	8-719-305-15	DIODE GH3F		Q553	8-729-313-42	TRANSISTOR 2SD1134	
D561	8-719-928-08	DIODE ERD28-08S		Q1510	8-729-117-54	TRANSISTOR 2SA1175	
D562	8-719-300-65	DIODE ES1F		Q1511	8-729-178-54	TRANSISTOR 2SC2785	
D1510	8-719-911-55	DIODE U05G					
D1511	8-719-911-19	DIODE 1SS119		Q1512	8-729-900-36	TRANSISTOR DTC124ES	
D1512	8-719-911-19	DIODE 1SS119		Q1513	8-729-900-63	TRANSISTOR DTA124ES	
D1513	8-719-911-55	DIODE U05G		Q1514	8-729-900-36	TRANSISTOR DTC124ES	
D1514	8-719-911-55	DIODE U05G		Q1515	8-729-900-36	TRANSISTOR DTC124ES	
D1516	8-759-157-40	DIODE UPC574J		Q1516	8-729-105-73	TRANSISTOR 2SK523-L2	
D1517	8-719-918-77	DIODE V19G		Q1517	8-729-900-36	TRANSISTOR DTC124ES	
D1518	8-719-918-77	DIODE V19G		Q1518	8-729-900-36	TRANSISTOR DTC124ES	
D1521	8-719-911-19	DIODE 1SS119		Q1519	8-729-178-54	TRANSISTOR 2SC2785	
D1522	8-719-000-12	DIODE MC931		Q1520	8-729-178-54	TRANSISTOR 2SC2785	
		<u>FUSE</u>		Q1521	8-729-117-54	TRANSISTOR 2SA1175	
F501	1-532-285-11	FUSE, TIME-LAG 1.25A/250V		Q1522	8-729-177-43	TRANSISTOR 2SD774	
	*1-533-189-11	HOLDER, FUSE; F501		Q1523	8-729-103-43	TRANSISTOR 2SB734	
		<u>IC</u>				<u>RESISTOR</u>	
IC501	8-759-100-60	IC UPC1377C		R501	1-247-725-11	CARBON	10K 5% 1/4W
IC502	8-759-170-12	IC UPC78M12H		R503	1-249-422-11	CARBON	2.7K 5% 1/6W
IC551	8-759-105-82	IC UPC1378H-P		R504	1-249-411-11	CARBON	330 5% 1/6W
	3-701-833-01	HEAD, WASHER, TAPPING SCREW; IC551		R505	1-247-702-11	CARBON	150 5% 1/4W
IC552	8-759-145-58	IC UPC4558C		R506	1-247-700-11	CARBON	100 5% 1/4W
IC1510	8-759-145-58	IC UPC4558C		R507	1-246-536-00	CARBON	430K 5% 1/4W
IC1511	8-759-145-58	IC UPC4558C		R508	1-249-462-11	CARBON	22K 5% 1/4W
IC1512	8-759-909-70	IC CX23025		R509	1-249-433-11	CARBON	22K 5% 1/6W
		<u>COIL</u>		R510	1-247-881-00	CARBON	120K 5% 1/6W
L551	1-459-678-11	HLC		R511	1-247-868-00	CARBON	36K 5% 1/6W
L552	1-459-390-00	COIL (WITH CORE)		R512	1-249-411-11	CARBON	330 5% 1/6W
L555	1-408-227-00	MICRO INDUCTOR 470UH		R513	1-249-468-11	CARBON	82K 5% 1/4W
L556	1-407-699-00	MICRO INDUCTOR 33UH		R514	1-247-723-11	CARBON	6.8K 5% 1/4W
L557	1-459-407-00	COIL, FERRITE CHOKE		R515	1-249-459-11	CARBON	12K 5% 1/4W
L558	1-407-365-00	COIL, CHOKE		R516	1-249-435-11	CARBON	33K 5% 1/6W
L559	1-407-364-00	COIL, SPOOK CHOKE 3.3UH		R517	1-249-407-11	CARBON	150 5% 1/6W
L560	1-407-695-00	MICRO INDUCTOR 15UH		R518	1-247-701-11	CARBON	120 5% 1/4W F
L562	1-408-239-00	MICRO INDUCTOR 4.7MMH		R519	1-247-849-00	CARBON	5.6K 5% 1/6W
L563	1-459-075-00	COIL, DYNAMIC CONVERSION CHOKE		R520	1-249-419-11	CARBON	1.5K 5% 1/6W
				R521	1-249-417-11	CARBON	1K 5% 1/6W
				R522	1-249-439-11	CARBON	68K 5% 1/6W

The components identified by shading and mark **A** are critical for safety. Replace only with part number specified.



K

Ref.No.	Part No.	Description				Remark
R583	1-249-433-11	CARBON	22K	5%	1/6W	
R584	1-246-511-00	CARBON	39K	5%	1/4W	
R585	1-247-719-11	CARBON	3.3K	5%	1/4W	
R586	1-249-428-11	CARBON	8.2K	5%	1/6W	
R587	1-246-523-00	CARBON	120K	5%	1/4W	
R588	1-249-422-11	CARBON	2.7K	5%	1/6W	
R589	1-249-424-11	CARBON	3.9K	5%	1/6W	
R590	1-249-421-11	CARBON	2.2K	5%	1/6W	
R592	1-215-871-11	METAL OXIDE	2.2K	5%	1W	F
R593	1-249-417-11	CARBON	1K	5%	1/6W	F
R594	1-249-435-11	CARBON	33K	5%	1/6W	
R595	1-249-421-11	CARBON	2.2K	5%	1/6W	
R596	1-249-420-11	CARBON	1.8K	5%	1/6W	
R597	1-249-409-11	CARBON	220	5%	1/6W	
R598	1-246-525-00	CARBON	150K	5%	1/4W	
R599	1-249-431-11	CARBON	15K	5%	1/6W	
R1501	1-215-469-00	METAL	100K	1%	1/6W	
R1502	1-215-451-00	METAL	18K	1%	1/6W	
R1503	1-247-722-11	CARBON	5.6K	5%	1/4W	F
R1505	1-215-869-11	METAL OXIDE	1K	5%	1W	F
R1510	1-249-429-11	CARBON	10K	5%	1/6W	
R1511	1-249-437-11	CARBON	47K	5%	1/6W	
R1515	1-249-429-11	CARBON	10K	5%	1/6W	
R1516	1-249-433-11	CARBON	22K	5%	1/6W	
R1517	1-249-430-11	CARBON	12K	5%	1/6W	
R1518	1-249-425-11	CARBON	4.7K	5%	1/6W	
R1519	1-249-429-11	CARBON	10K	5%	1/6W	
R1520	1-247-895-00	CARBON	470K	5%	1/6W	
R1521	1-249-429-11	CARBON	10K	5%	1/6W	
R1522	1-249-409-11	CARBON	220	5%	1/6W	
R1523	1-249-441-11	CARBON	100K	5%	1/6W	
R1524	1-249-437-11	CARBON	47K	5%	1/6W	
R1525	1-249-425-11	CARBON	4.7K	5%	1/6W	
R1526	1-249-435-11	CARBON	33K	5%	1/6W	
R1527	1-249-421-11	CARBON	2.2K	5%	1/6W	
R1528	1-249-438-11	CARBON	56K	5%	1/6W	
R1529	1-249-431-11	CARBON	15K	5%	1/6W	
R1530	1-249-423-11	CARBON	3.3K	5%	1/6W	
R1532	1-249-431-11	CARBON	15K	5%	1/6W	
R1533	1-249-437-11	CARBON	47K	5%	1/6W	
R1534	1-249-437-11	CARBON	47K	5%	1/6W	
R1535	1-249-413-11	CARBON	470	5%	1/6W	
R1536	1-249-418-11	CARBON	1.2K	5%	1/6W	
R1537	1-249-423-11	CARBON	3.3K	5%	1/6W	
R1538	1-215-480-00	CARBON	300K	5%	1/6W	
R1539	1-249-429-11	CARBON	10K	5%	1/6W	
R1540	1-216-510-11	METAL OXIDE	8.2K	5%	5W	F
R1541	1-249-429-11	CARBON	10K	5%	1/6W	
R1542	1-249-429-11	CARBON	10K	5%	1/6W	
R1543	1-215-466-00	CARBON	75K	5%	1/6W	
R1544	1-247-885-00	CARBON	180K	5%	1/6W	
R1545	1-247-874-00	CARBON	62K	5%	1/6W	
R1546	1-215-479-00	CARBON	270K	5%	1/6W	

Ref.No.	Part No.	Description	Remark
	*A-1375-066-A	HC BOARD, COMPLETE *****	
		<u>CAPACITOR</u>	
C982	1-130-023-00	FILM 0.0027MF	5% 50V
C983	1-130-028-00	FILM 0.0068MF	5% 50V
C984	1-108-837-00	MYLAR 0.01MF	10% 50V
C985	1-123-617-00	ELECT 10MF	20% 16V
C986	1-123-356-00	ELECT 10MF	20% 25V
		<u>DIODE</u>	
D971	8-719-109-85	DIODE RD5.1ES-B2	
		<u>CONNECTOR</u>	
HC1	*1-566-057-11	PIN, CONNECTOR 5P	
HC2	*1-566-056-11	PIN, CONNECTOR 4P	
HC3	*1-566-054-11	PIN, CONNECTOR 2P	
HC4	*1-566-054-11	PIN, CONNECTOR 2P	
		<u>IC</u>	
IC985	8-759-933-23	IC BA236	
		<u>RESISTOR</u>	
R982	1-249-429-11	CARBON 10K 5%	1/6W
R983	1-249-417-11	CARBON 1K 5%	1/6W
R984	1-249-429-11	CARBON 10K 5%	1/6W
R985	1-249-417-11	CARBON 1K 5%	1/6W
R986	1-249-429-11	CARBON 10K 5%	1/6W
R988	1-249-405-11	CARBON 100 5%	1/6W
R989	1-249-417-11	CARBON 1K 5%	1/6W
R990	1-249-432-11	CARBON 18K 5%	1/6W
R991	1-249-408-11	CARBON 180 5%	1/6W
R992	1-249-427-11	CARBON 6.8K 5%	1/6W
R993	1-249-418-11	CARBON 1.2K 5%	1/6W
R994	1-249-420-11	CARBON 1.8K 5%	1/6W
		<u>VARIABLE RESISTOR</u>	
RV982	1-237-349-11	RES, VAR, CARBON 10K	
RV983	1-237-712-11	RES, VAR, CARBON 10K	
RV984	1-237-712-11	RES, VAR, CARBON 10K	
RV985	1-237-350-11	RES, VAR, CARBON 20K	
RV986	1-230-631-11	RES, ADJ, CARBON 22K	
RV987	1-237-348-11	RES, VAR, CARBON 5K	
*****			
	*A-1389-865-A	K BOARD, COMPLETE *****	
		<u>CAPACITOR</u>	
C201	1-124-902-00	ELECT 0.47MF	20% 50V
C202	1-124-902-00	ELECT 0.47MF	20% 50V
C203	1-123-332-00	ELECT 47MF	20% 16V



Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
C204	1-123-332-00	ELECT 47MF 20% 16V		TRANSISTOR			
C205	1-106-222-00	MYLAR 0.12MF 10% 100V		Q201	8-729-178-54	TRANSISTOR 2SC2785	
C206	1-102-125-00	CERAMIC 0.0047MF 10% 50V		Q207	8-729-177-43	TRANSISTOR 2SD774	
C207	1-102-125-00	CERAMIC 0.0047MF 10% 50V		RESISTOR			
C208	1-106-222-00	MYLAR 0.12MF 10% 100V		R201	1-249-441-11	CARBON 100K 5% 1/6W	
C209	1-123-369-00	ELECT 4.7MF 20% 25V		R202	1-249-441-11	CARBON 100K 5% 1/6W	
C210	1-123-369-00	ELECT 4.7MF 20% 25V		R203	1-249-419-11	CARBON 1.5K 5% 1/6W	
C211	1-123-369-00	ELECT 4.7MF 20% 25V		R204	1-249-429-11	CARBON 10K 5% 1/6W	
C212	1-123-369-00	ELECT 4.7MF 20% 25V		R205	1-249-429-11	CARBON 10K 5% 1/6W	
C213	1-123-321-00	ELECT 220MF 20% 16V		R206	1-249-429-11	CARBON 10K 5% 1/6W	
C214	1-124-905-11	ELECT 3.3MF 20% 50V		R207	1-249-419-11	CARBON 1.5K 5% 1/6W	
C215	1-124-905-11	ELECT 3.3MF 20% 50V		R208	1-249-419-11	CARBON 1.5K 5% 1/6W	
C218	1-123-324-00	ELECT 1000MF 20% 16V		R209	1-249-432-11	CARBON 18K 5% 1/6W	
C219	1-124-445-00	ELECT 100MF 20% 16V		R210	1-249-432-11	CARBON 18K 5% 1/6W	
C221	1-124-925-11	ELECT 2.2MF 20% 50V		R212	1-249-425-11	CARBON 4.7K 5% 1/6W	
C222	1-123-332-00	ELECT 47MF 20% 16V		R213	1-249-405-11	CARBON 100 5% 1/6W	
C224	1-124-925-11	ELECT 2.2MF 20% 50V		R221	1-215-865-11	METAL OXIDE 220 5% 1W F	
C226	1-123-356-00	ELECT 10MF 20% 25V		R223	1-247-881-00	CARBON 120K 5% 1/6W	
C227	1-123-349-00	ELECT 1000MF 20% 35V		R224	1-249-412-11	CARBON 390 5% 1/6W	
C228	1-108-633-81	MYLAR 0.039MF 10% 100V		R226	1-247-881-00	CARBON 120K 5% 1/6W	
C229	1-124-908-11	ELECT 22MF 20% 25V		R227	1-249-412-11	CARBON 390 5% 1/6W	
C230	1-106-222-00	MYLAR 0.12MF 10% 100V		R228	1-249-429-11	CARBON 10K 5% 1/6W	
C231	1-123-336-00	ELECT 470MF 20% 25V		R229	1-249-385-11	CARBON 2.2 5% 1/6W F	
C232	1-108-633-81	MYLAR 0.039MF 10% 100V		R230	1-249-429-11	CARBON 10K 5% 1/6W	
C233	1-124-908-11	ELECT 22MF 20% 25V		R231	1-249-385-11	CARBON 2.2 5% 1/6W F	
C234	1-106-222-00	MYLAR 0.12MF 10% 100V		R236	1-249-423-11	CARBON 3.3K 5% 1/6W	
C235	1-123-336-00	ELECT 470MF 20% 25V		R243	1-249-417-11	CARBON 1K 5% 1/6W	
C244	1-123-332-00	ELECT 47MF 20% 16V		R244	1-249-417-11	CARBON 1K 5% 1/6W	
C245	1-124-477-11	ELECT 47MF 20% 25V		R245	1-249-417-11	CARBON 1K 5% 1/6W	
C283	1-123-332-00	ELECT 47MF 20% 16V		R246	1-249-417-11	CARBON 1K 5% 1/6W	
DIODE				*****			
D201	8-719-101-61	DIODE RD6.2E-L2		*9-992-308-01 HA BOARD (KEY BOARD UNIT A)			
D202	8-719-101-86	DIODE RD13E-L2		*****			
D203	8-719-911-19	DIODE 1SS119		DIODE			
D204	8-719-911-19	DIODE 1SS119		D905	8-719-911-19	DIODE 1SS119	
D206	8-719-911-19	DIODE 1SS119		D906	8-719-911-19	DIODE 1SS119	
D207	8-719-911-19	DIODE 1SS119		D907	8-719-911-19	DIODE 1SS119	
D210	8-719-911-19	DIODE 1SS119		D908	8-719-911-19	DIODE 1SS119	
D211	8-719-911-19	DIODE 1SS119		D909	8-719-911-19	DIODE 1SS119	
D1519	8-719-110-37	DIODE RD13ES-B3		D910	8-719-911-19	DIODE 1SS119	
IC				D911	9-990-893-01	LED TLY263P	
IC201	8-759-276-30	IC TA7630P		D912	9-990-893-01	LED TLY263P	
IC204	8-759-205-84	IC TA7273P		D913	9-990-893-01	LED TLY263P	
CONNECTOR				D914	9-990-893-01	LED TLY263P	
K1	*1-566-054-11	PIN, CONNECTOR 2P		D915	9-990-893-01	LED TLY263P	
K2	*1-566-056-11	PIN, CONNECTOR 4P		D916	9-990-893-01	LED TLY263P	
K3	*1-566-057-11	PIN, CONNECTOR 5P		D917	9-990-893-01	LED TLY263P	
K4	*1-508-765-00	3P PLUG (M)		D918	9-990-893-01	LED TLY263P	
K5	*1-560-123-00	PLUG, CONNECTOR (2.5MM) 3P		D919	9-990-893-01	LED TLY263P	

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
D920	9-990-893-01	LED TLY263P		D945	8-719-911-19	DIODE 1SS119	
D921	9-990-893-01	LED TLY263P		D946	8-719-911-19	DIODE 1SS119	
D922	9-990-893-01	LED TLY263P		D947	8-719-911-19	DIODE 1SS119	
D923	9-990-893-01	LED TLY263P		D948	9-990-901-01	LED TLS263P	
D924	9-990-893-01	LED TLY263P		D949	9-990-901-01	LED TLS263P	
D925	9-990-893-01	LED TLY263P		D950	9-990-893-01	LED TLY263P	
D926	9-990-893-01	LED TLY263P		D951	9-990-893-01	LED TLY263P	
D927	9-990-893-01	LED TLY263P		D952	9-990-893-01	LED TLY263P	
D928	9-990-893-01	LED TLY263P		D953	9-990-893-01	LED TLY263P	
D929	9-990-893-01	LED TLY263P		D954	9-990-893-01	LED TLY263P	
D930	9-990-893-01	LED TLY263P		D955	9-990-893-01	LED TLY263P	
D931	9-990-893-01	LED TLY263P		D956	9-990-893-01	LED TLY263P	
RESISTOR				D957	9-990-893-01	LED TLY263P	
R905	1-247-700-11	CARBON 100 5% 1/4W		D958	9-990-893-01	LED TLY263P	
R906	1-247-704-11	CARBON 220 5% 1/4W		D959	9-990-893-01	LED TLY263P	
R907	1-247-700-11	CARBON 100 5% 1/4W		D960	9-990-893-01	LED TLY263P	
R908	1-247-704-11	CARBON 220 5% 1/4W		D961	9-990-893-01	LED TLY263P	
R909	1-247-700-11	CARBON 100 5% 1/4W		D962	9-990-893-01	LED TLY263P	
R910	1-247-704-11	CARBON 220 5% 1/4W		D963	9-990-893-01	LED TLY263P	
R911	1-247-700-11	CARBON 100 5% 1/4W		D964	9-990-893-01	LED TLY263P	
R912	1-247-704-11	CARBON 220 5% 1/4W		D965	9-990-893-01	LED TLY263P	
R913	1-247-700-11	CARBON 100 5% 1/4W		D968	9-990-901-01	LED TLS263P	
R914	1-247-704-11	CARBON 220 5% 1/4W		RESISTOR			
R915	1-247-700-11	CARBON 100 5% 1/4W		R940	1-247-703-11	CARBON 180 5% 1/4W	
R916	1-247-704-11	CARBON 220 5% 1/4W		R941	1-247-700-11	CARBON 100 5% 1/4W	
R917	1-247-704-11	CARBON 220 5% 1/4W		R942	1-247-704-11	CARBON 220 5% 1/4W	
R918	1-247-704-11	CARBON 220 5% 1/4W		R943	1-247-700-11	CARBON 100 5% 1/4W	
R919	1-247-704-11	CARBON 220 5% 1/4W		R944	1-247-704-11	CARBON 220 5% 1/4W	
SWITCH				R945	1-247-700-11	CARBON 100 5% 1/4W	
S905	1-553-766-00	MT SWITCH (KEY BOARD SWITCH)		R946	1-247-700-11	CARBON 100 5% 1/4W	
S906	1-553-766-00	MT SWITCH (KEY BOARD SWITCH)		R947	1-247-700-11	CARBON 100 5% 1/4W	
S907	1-553-766-00	MT SWITCH (KEY BOARD SWITCH)		R948	1-247-700-11	CARBON 100 5% 1/4W	
S908	1-553-766-00	MT SWITCH (KEY BOARD SWITCH)		R949	1-247-700-11	CARBON 100 5% 1/4W	
S909	1-553-766-00	MT SWITCH (KEY BOARD SWITCH)		R950	1-247-700-11	CARBON 100 5% 1/4W	
S910	1-553-766-00	MT SWITCH (KEY BOARD SWITCH)		R951	1-247-700-11	CARBON 100 5% 1/4W	
S911	1-553-766-00	MT SWITCH (KEY BOARD SWITCH)		SWITCH			
S912	1-553-766-00	MT SWITCH (KEY BOARD SWITCH)		S940	1-553-766-00	MT SWITCH (KEY BOARD SWITCH)	
S913	1-553-766-00	MT SWITCH (KEY BOARD SWITCH)		S941	1-553-766-00	MT SWITCH (KEY BOARD SWITCH)	
S914	1-553-766-00	MT SWITCH (KEY BOARD SWITCH)		S942	1-553-766-00	MT SWITCH (KEY BOARD SWITCH)	
S915	1-553-766-00	MT SWITCH (KEY BOARD SWITCH)		S943	1-553-766-00	MT SWITCH (KEY BOARD SWITCH)	
*****				S944	1-553-766-00	MT SWITCH (KEY BOARD SWITCH)	
*9-992-401-01 HB BOARD (KEY BOARD UNIT B)				S945	1-553-766-00	MT SWITCH (KEY BOARD SWITCH)	
*****				S946	1-553-766-00	MT SWITCH (KEY BOARD SWITCH)	
DIODE				S947	1-553-766-00	MT SWITCH (KEY BOARD SWITCH)	
D940	8-719-911-19	DIODE 1SS119		S948	1-553-766-00	MT SWITCH (KEY BOARD SWITCH)	
D941	8-719-911-19	DIODE 1SS119		S949	1-553-766-00	MT SWITCH (KEY BOARD SWITCH)	
D942	8-719-911-19	DIODE 1SS119					
D943	8-719-911-19	DIODE 1SS119					
D944	8-719-911-19	DIODE 1SS119					



N

Ref.No.	Part No.	Description	Remark
	*9-990-898-01	N BOARD (KEY BOARD UNIT B) *****	
	IC		
IC935	8-741-138-70	IC BX1387 (DETECTOR)	
*****			
	MISCELLANEOUS *****		
T604	△ 1-237-614-11	RESISTOR ASSY, HIGH-VOLTAGE	
	△ 1-426-315-11	COIL, DEMAGNETIZATION	
	△ 1-439-372-32	TRANSFORMER ASSY, FLYBACK	
	△ 1-451-295-11	DEFLECTION YOKE (SY-153E)	
	1-452-032-00	MAGNET, DISK; 10MM φ	
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM φ	
	1-452-277-00	MAGNET, BMC	
	1-464-803-11	KEY BOARD UNIT (A)	
	1-464-804-11	KEY BOARD UNIT (B)	
	△ 1-534-820-13	POWER CORD (AEP,AUS ONLY)	
	△ 1-559-409-11	CORD,POWER (WG ONLY)	
S901	△ 1-554-965-12	SWITCH, PUSH (AC POWER)(1 KEY)	
V901	△ 8-736-955-05	PICTURE TUBE (A51JKQ10X)	

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ACCESSORIES AND PACKING MATERIALS  
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Part No.	Description	Remark
A-1470-789-A	COMMANDER ASSY (RM-668)	
*4-377-015-01	BAG, PROTECTION	
*4-382-067-01	CUSHION (UPPER) (ASSY)	
*4-382-068-01	CUSHION (LOWER) (ASSY)	
*4-383-143-01	INDIVIDUAL CARTON	
4-482-400-11	MANUAL, INSTRUCTION	

The components identified  
by shading and mark △ are  
critical for safety.  
Replace only with part  
number specified.



